

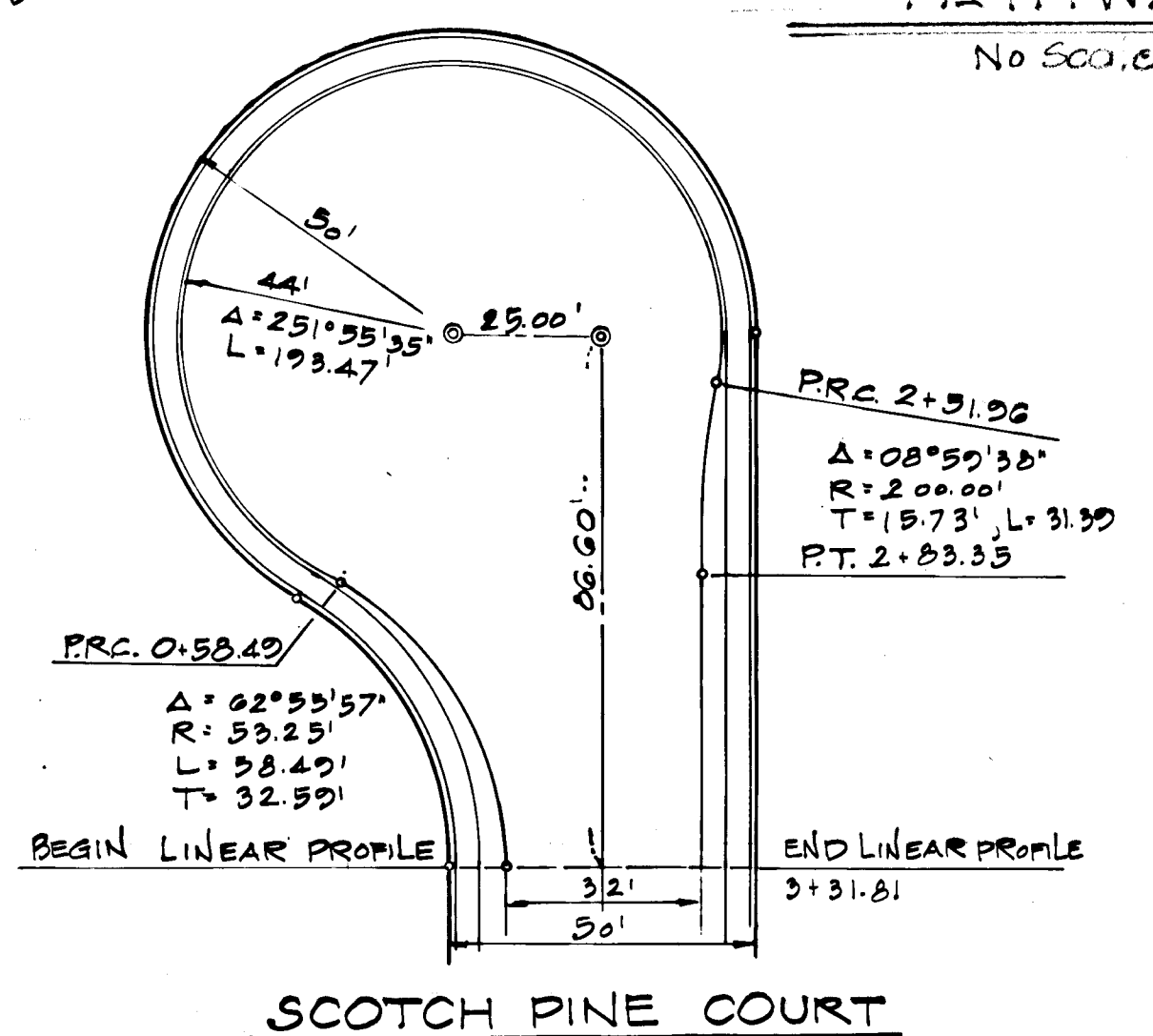
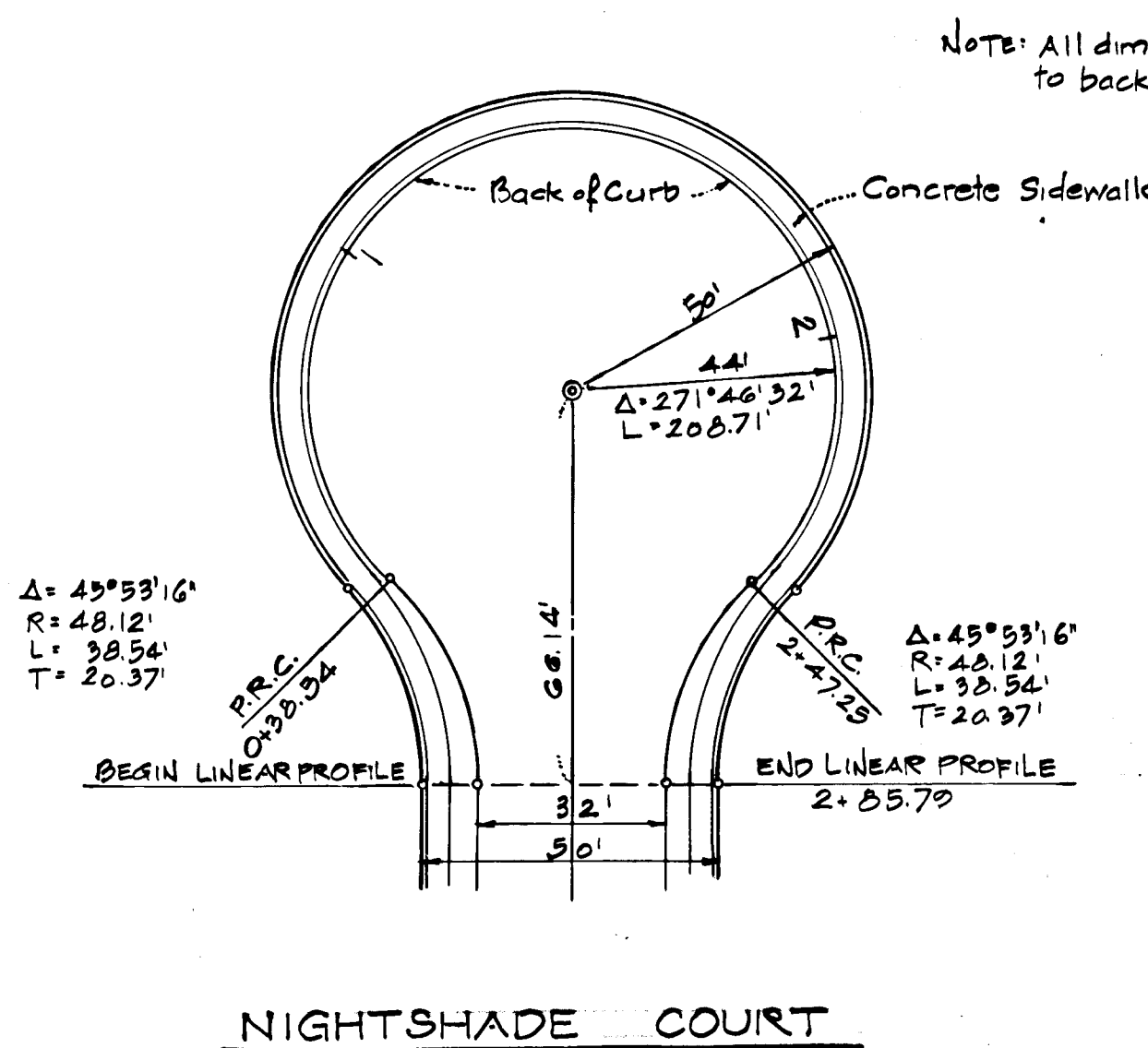
Rev. Date	Rev. No.	Revision Description
		G th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER: COLONIAL CORNER SERVICE CORPORATION BALTIMORE FEDERAL BUILDING 10 E FAYETTE STREET, BALTIMORE, MARYLAND 21202
		PROJECT AREA GLENMONT SECTION I AREA 4
		PROJECT TITLE DRAINAGE AREA MAP
		Scale: As Shown Date
		ENGINEER MCA ENGINEERING CORPORATION 1020 CROMWELL BRIDGE RD TOWSON, MD 21204
		<i>Paul Lee</i> Paul Lee Registered Engineer No. 4027

INDEX OF SHEETS

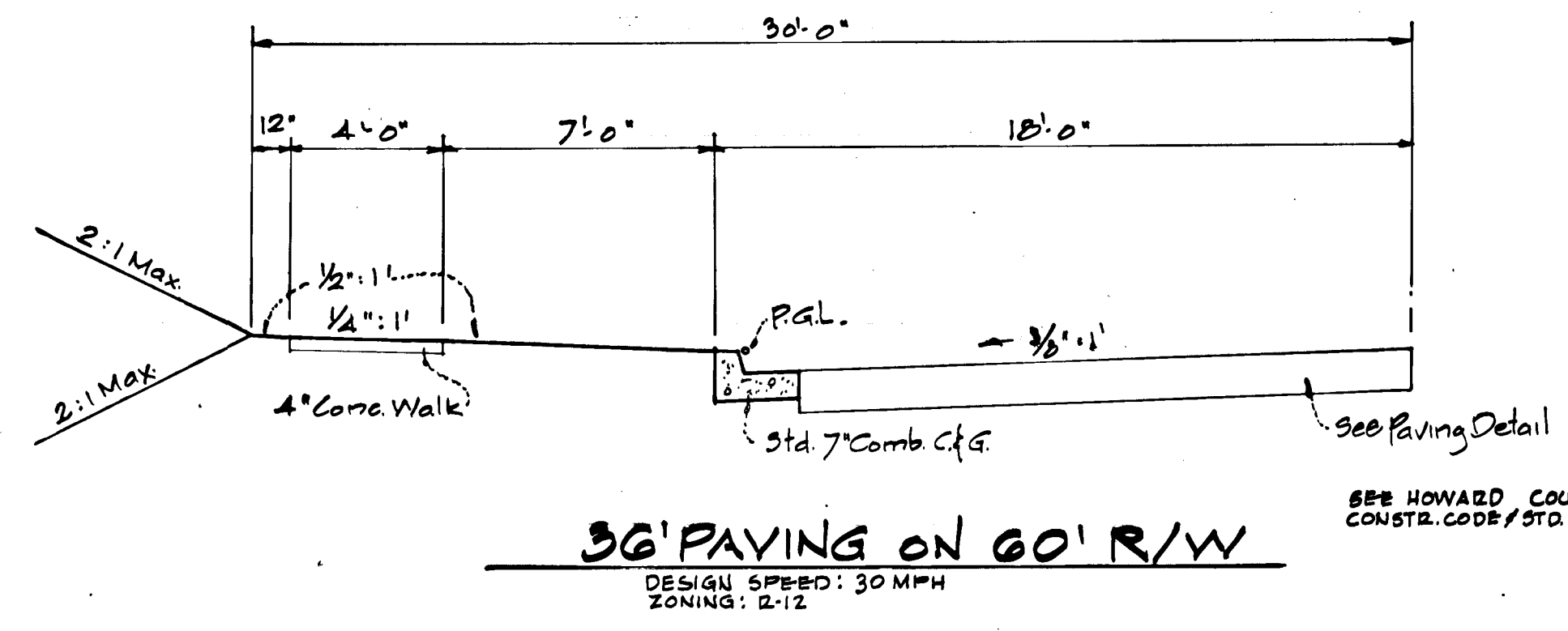
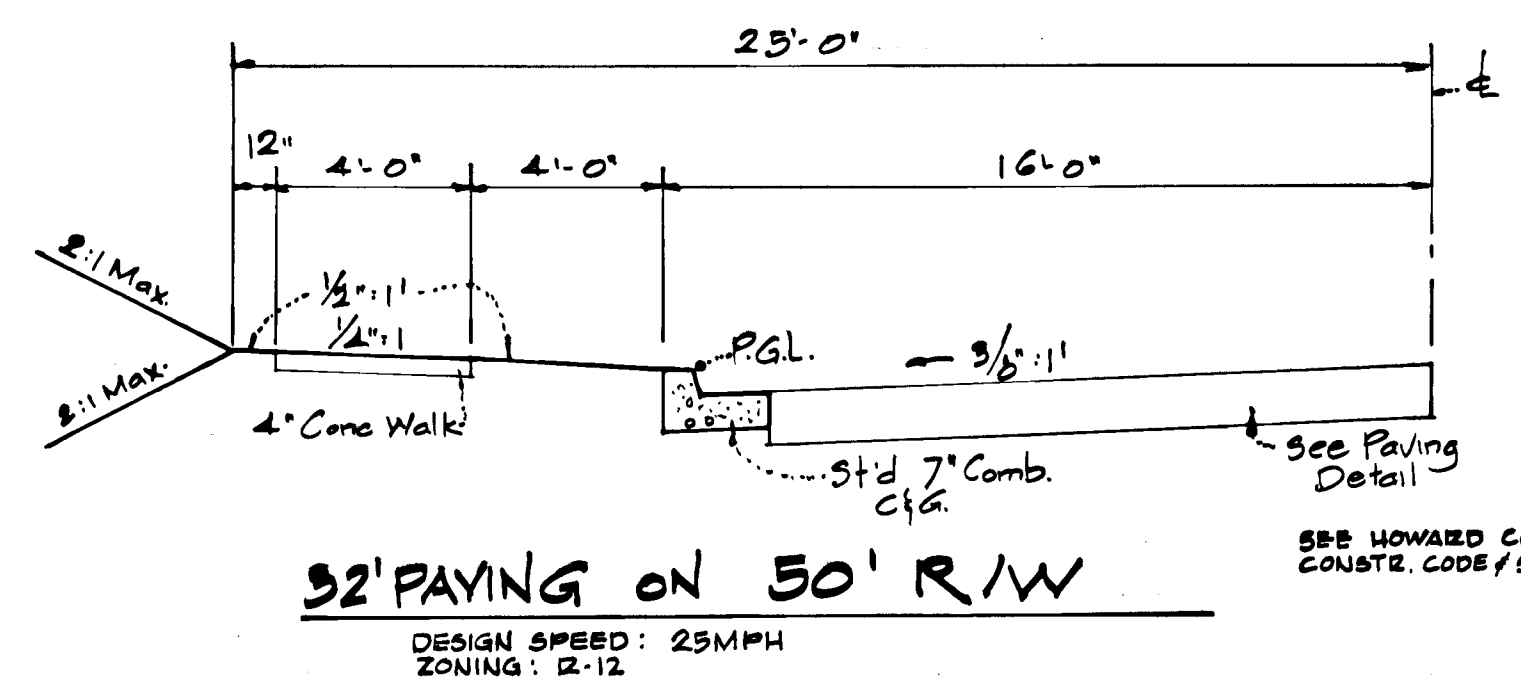
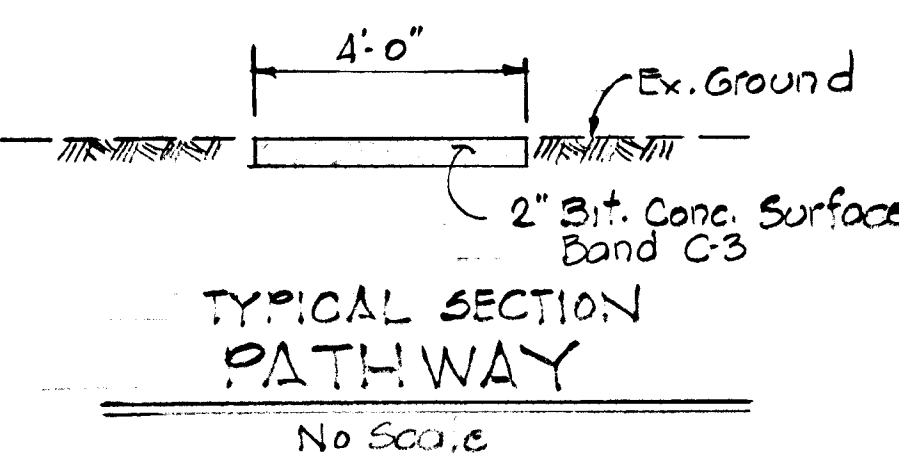
SHEET NO.	DESCRIPTION
1	LOCATION PLAN & DRAINAGE AREA MAP
2	TYPICAL CROSS SECTIONS & DETAILS
3	PLAN & PROFILE: SUMMER HOLLOW LANE
4	PLAN & PROFILE: NIGHT SHADE COURT
5	PLAN & PROFILE: BILLOW ROW
6	PLAN & PROFILE: SCOTCH PINE CT., SHINLEAF CT.
7	STORM DRAIN PROFILES
8	STORM DRAIN PROFILES
9	SEDIMENT CONTROL PLAN

NOTE: FOR LIMITS OF AREAS 1 & 2,
 SEE DRAINAGE AREA MAP
 SCALE 1" = 400' THIS SHEET.

Note: 1. All utility companies shall be notified 24 hours
 in advance of construction.
 2. Storm Drain trenches within road right-of-way
 shall be backfilled and compacted in accordance
 with Howard County Construction Code.



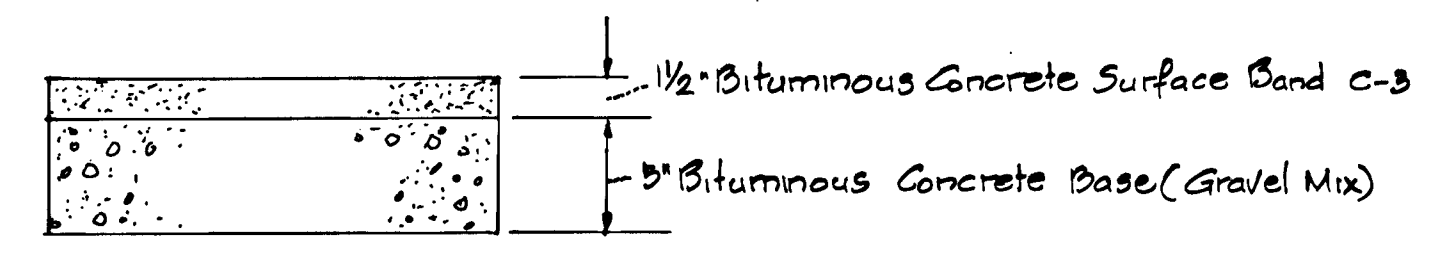
CUL DE SAC DETAILS
 Scale: 1" = 30'



TYPICAL ROADWAY SECTIONS
 Scale: 1/4" = 1'-0"

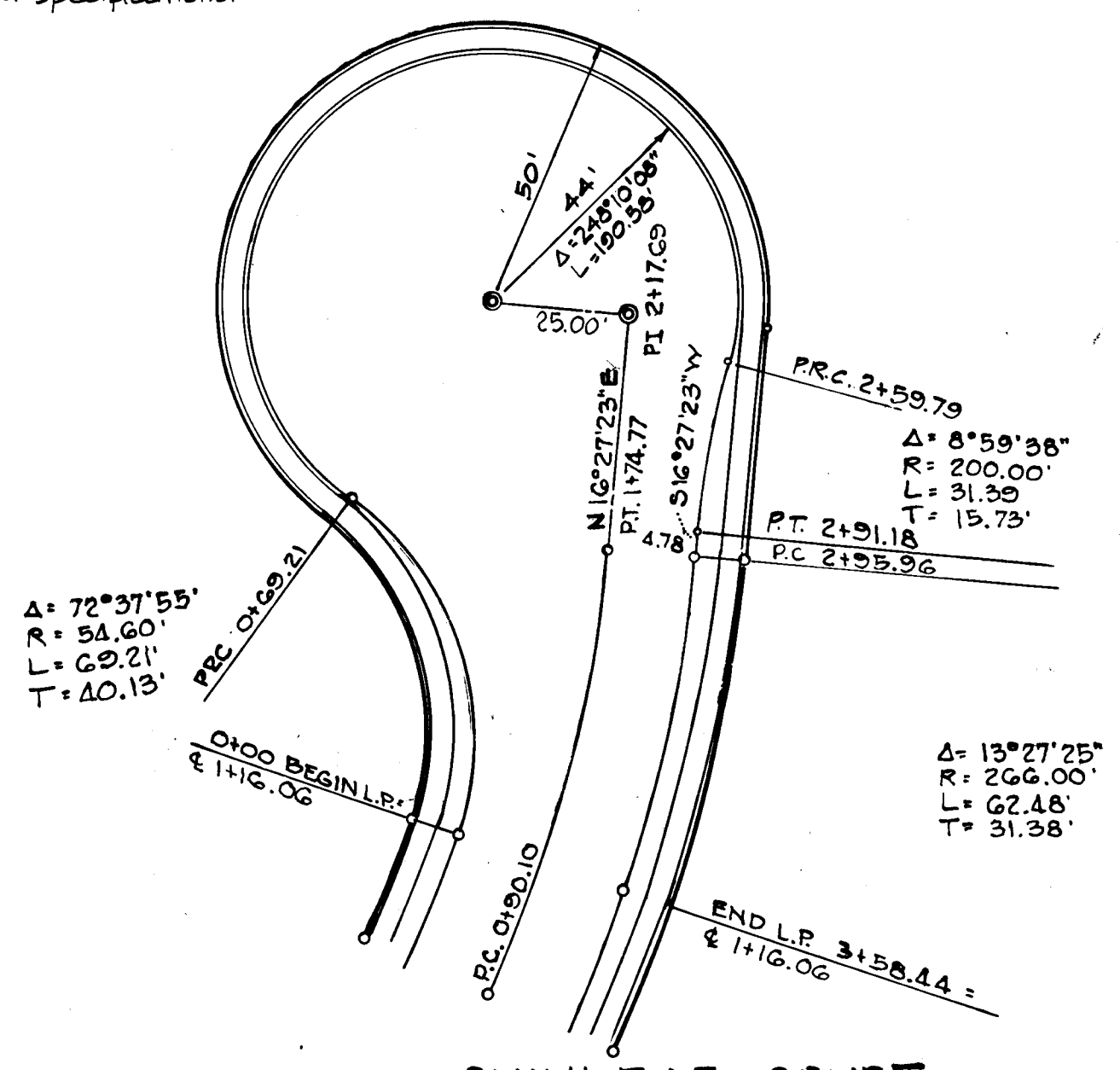
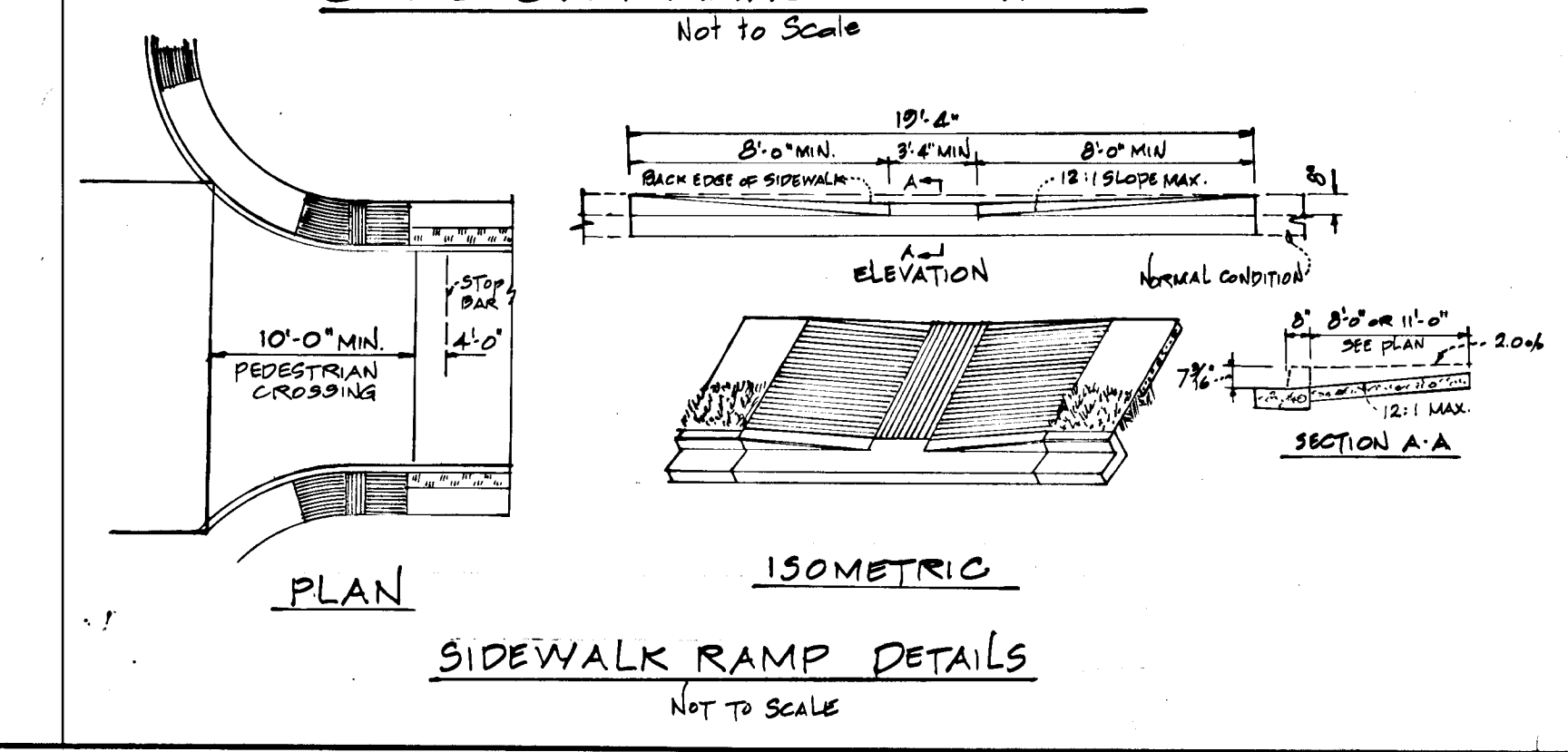
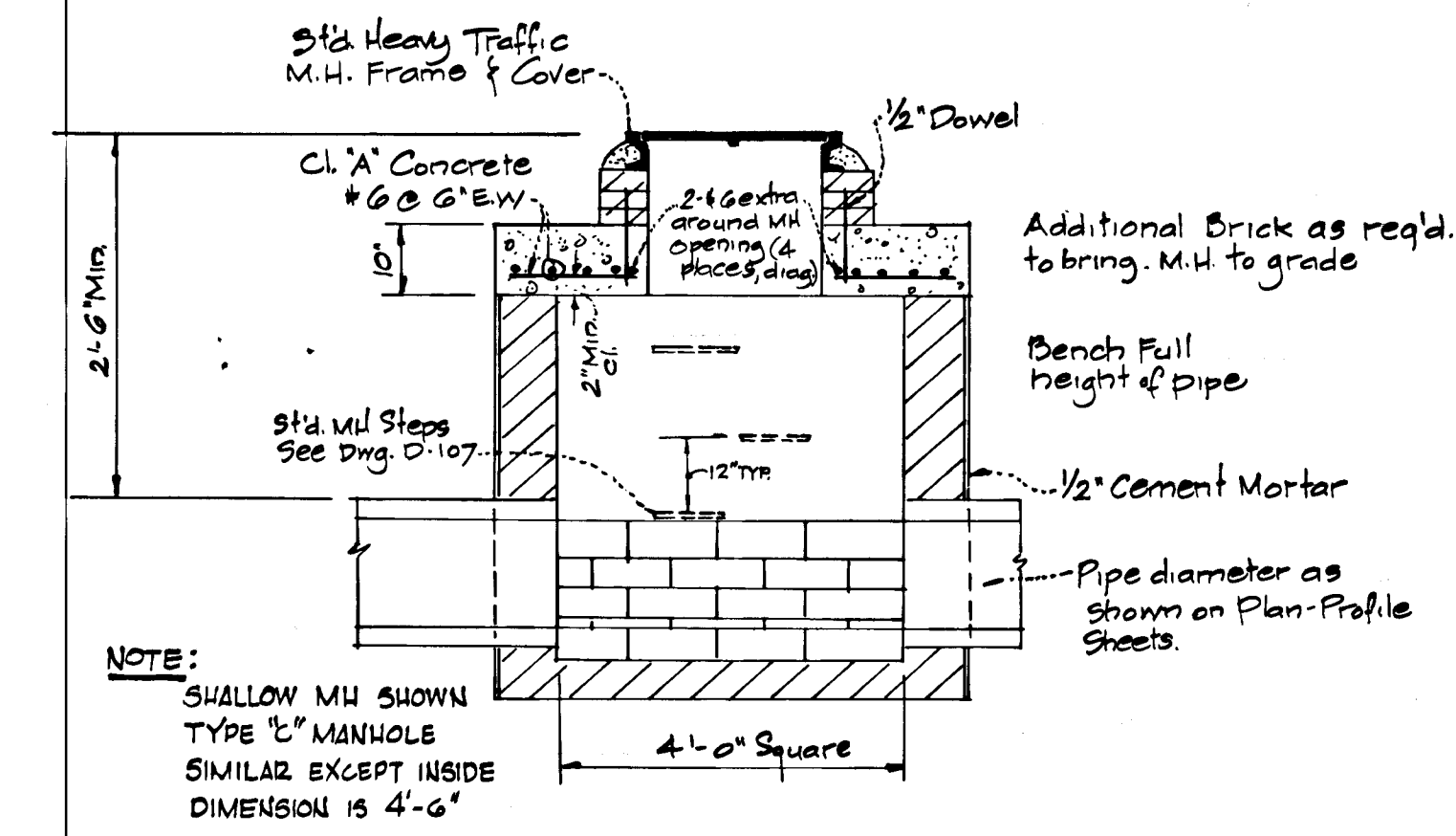
HORIZONTAL & VERTICAL CONTROLS ARE BASED ON THE MARYLAND STATE GRID SYSTEM. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE & STANDARD SPECIFICATIONS.

- Cleaning & grading Article C-1
- Subgrade Article C-2
- Base Course Article C-3
- Surface Course Article C-31

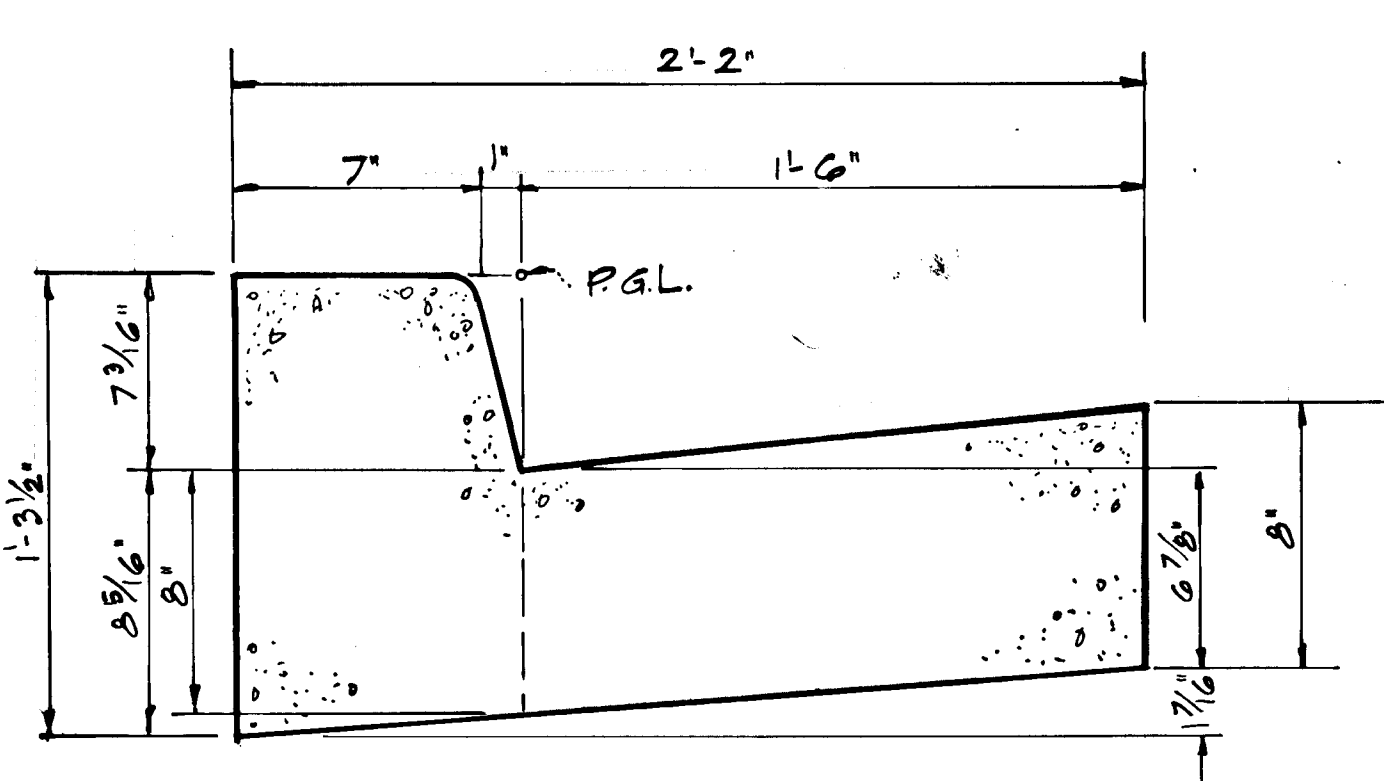


NOTE: The base will be primed in accordance with Sect. C-30.3 as provided in the Howard County Road Construction Code & Standard Specifications.
 Tack Coat is required in accordance with Section C-31.4 of the Howard Co. Road Constr. Code & Standard Specifications.

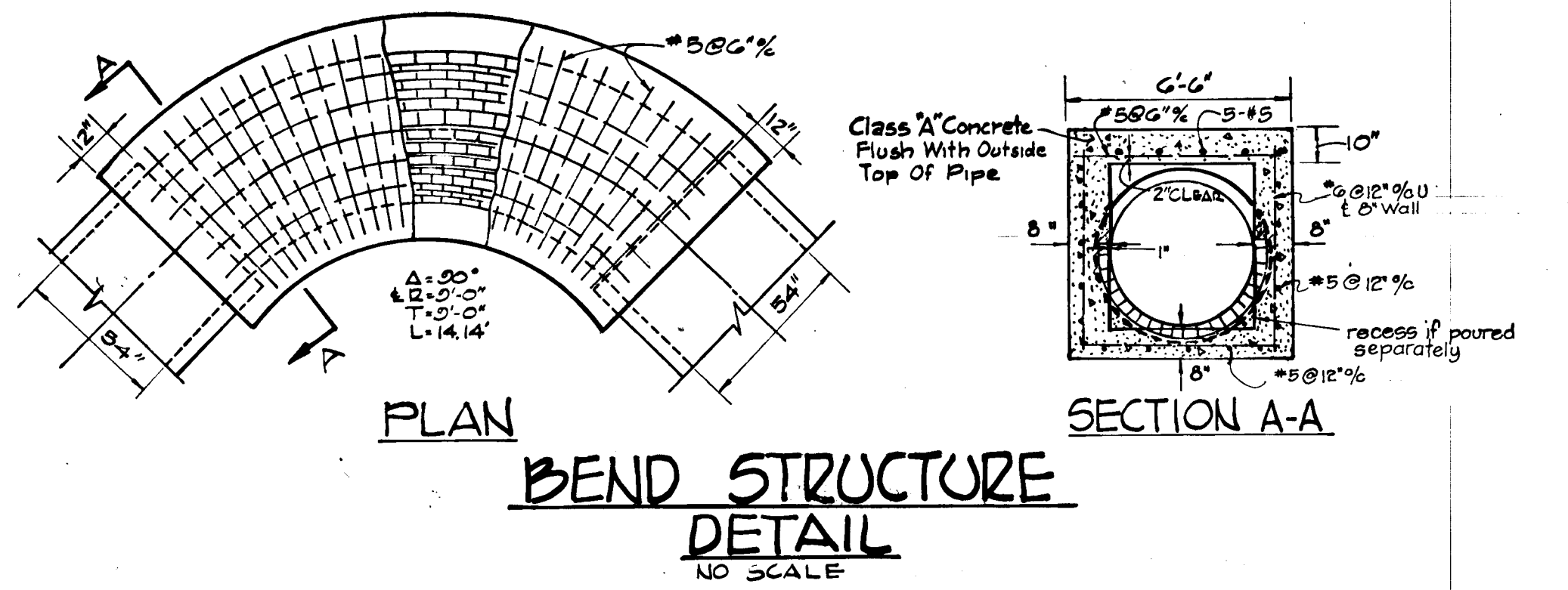
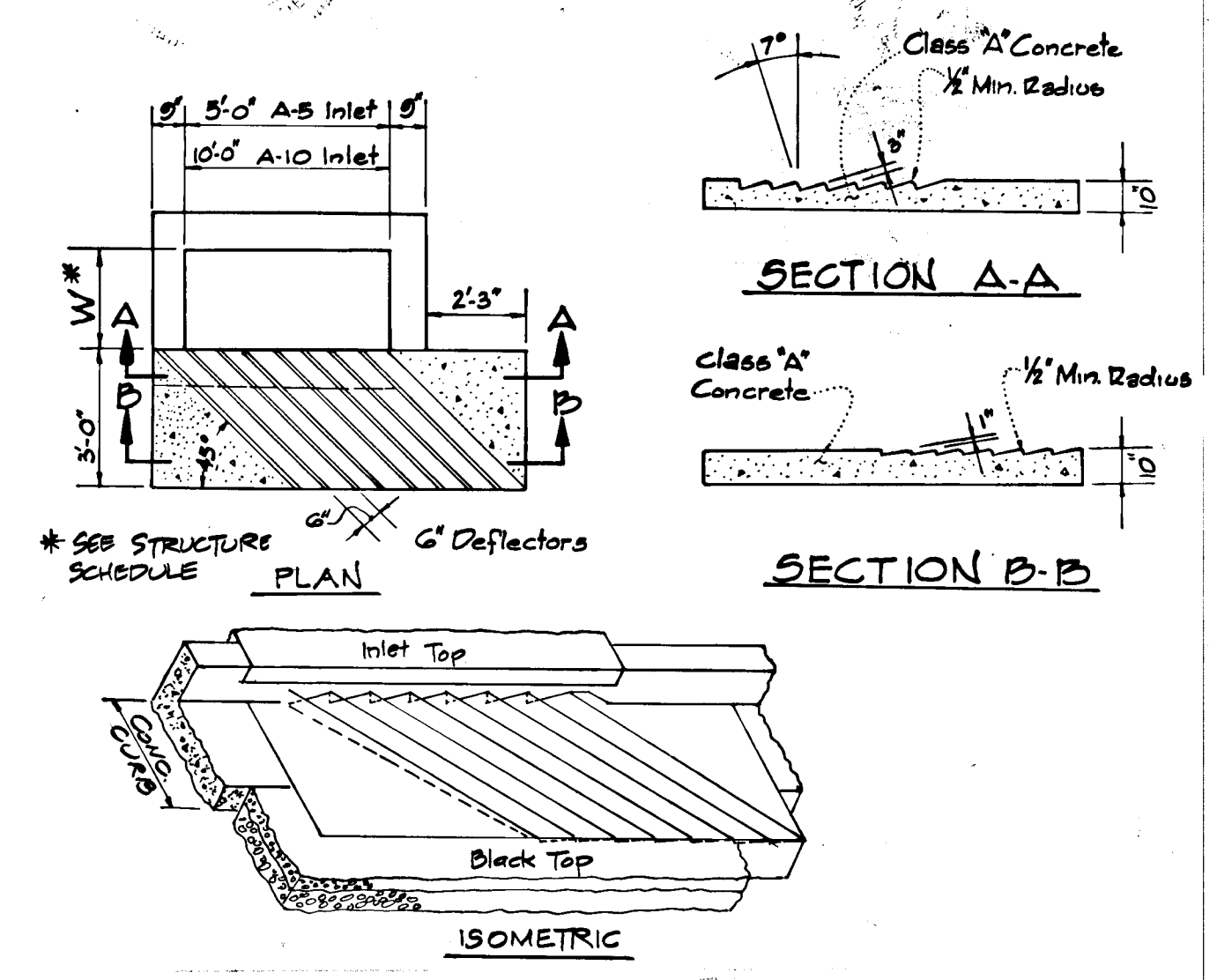
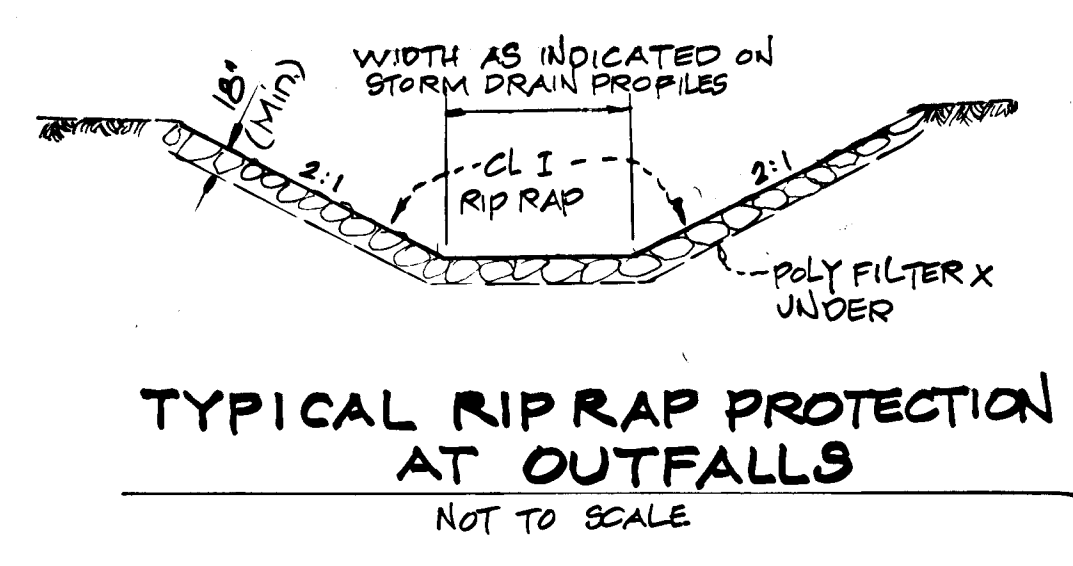
PAVING DETAIL
 Not to Scale



CUL DE SAC DETAIL
 Scale: 1" = 30'



NOTE: ALL CONCRETE ON THIS PROJECT SHALL BE AIR ENTRAINED



Rev. Date	Rev. No.	Revision Description
		6 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER: COLONIAL CORNER SERVICE CORPORATION BALTIMORE FEDERAL BUILDING 10 E. FAYETTE STREET, BALTIMORE MARYLAND 21202
		PROJECT AREA: GLEN MONT SECTION 1 AREA 4
		PROJECT TITLE: TYPICAL CROSS SECTIONS & DETAILS
		Scale: As Shown Date
		ENGINEER MCA ENGINEERING CORPORATION 1020 CROMWELL BRIDGE RD. TOWSON, MD. 21204
		<i>Paul Lee</i> Paul Lee Registered Engineer No. 4047

DEPARTMENT OF PUBLIC WORKS
W. O. Libert 3-21-78
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
John W. Markham 3-17-78
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

§ CURVE DATA
 $\Delta = 140^{\circ}14'42''$
 $R = 850.00'$
 $L = 211.93'$
 $T = 106.21'$
 CHG. $323^{\circ}04'00''$ W-210.70'

CONSTRUCT STD. TEE TURNAROUND
 LIMIT OF PAVING 25+32. LIMIT OF
 CURB & GUTTER 25+00 BOTH SIDES.
 ALL GRADING TO BE CONTAINED
 WITHIN SUBJECT SITE TO #
 AT STA 25+52.00. BARRICADE IN
 ACCORDANCE WITH HOWARD COUNTY
 STANDARDS TO BE PROVIDED.
 (Dwg. D-109
 Pg. 164)

TENTATIVE ALIGNMENT
 SUMMER HOLLOW LANE EXTENDED

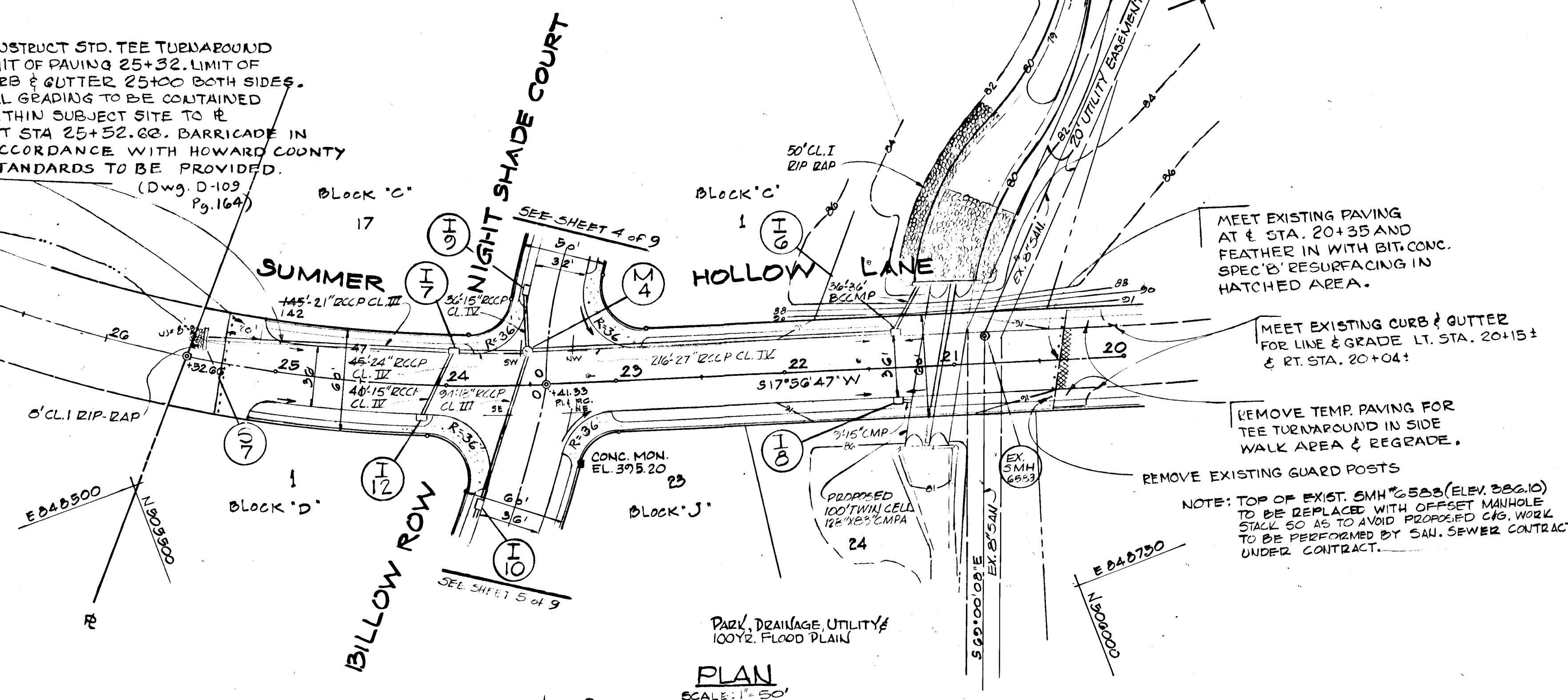
STORM DRAIN STRUCTURE SCHEDULE

No.	TYPE	TOP ELEV. IN	TOP ELEV. OUT	LOCATION
I-6	12-5(2.5Wide) D-64A/R119A	390.53	384.38	21+35+ Summer Hollow Ln.
I-7	12-10(2.5Wide) D-64A/R119A	392.30	392.40	23+27+ Summer Hollow Ln.
I-8	12-5(2.5Wide) D-64A/R119A	390.33	384.60	21+35+ Summer Hollow Ln.
I-9	12-5(2.5Wide) D-64A/R119A	395.10	391.17	0+53+ Nightshade Court
I-10	12-10(2.5Wide) D-64A/R119A	396.50	392.27	0+79+ Billow Row
I-12	12-10(2.5Wide) D-64A/R119A	398.15	394.03	24+14+ Summer Hollow Ln.
M-4	Shallow LM See Sheet 2	394.60	389.45	23+51, 20+R+ Summer Hl.
S-7	Support Wall D-44/R101	399.25	397.87	25+43, 12+R+ Summer Hl.

* See Howard Co. Road Construction
 Code & Standard Specs.
 ** w/ Deflectors

DATE
 BY
 SURVEYED
 CHECKED
 NOTE BOOK
 NO.

DATE
 BY
 SURVEYED
 CHECKED
 NOTE BOOK
 NO.

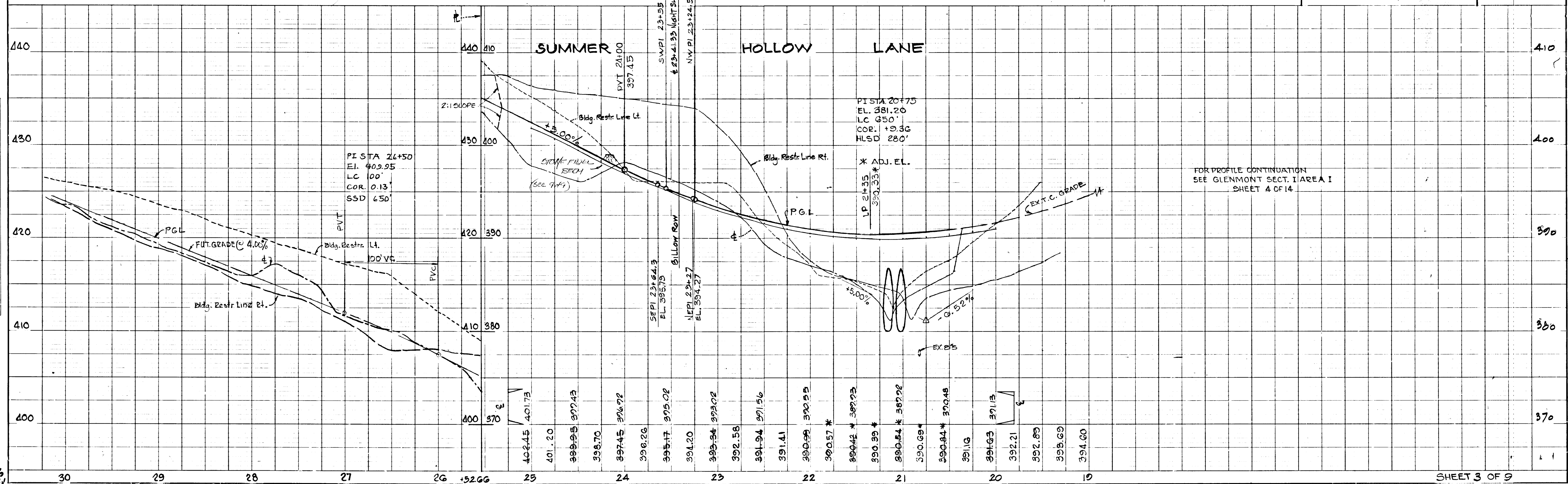


PLAN
 SCALE: 1" = 50'

Revision Description

Rev. Date	Rev. No.	Revision Description
		8 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER: COLONIAL CORNER SERVICE CORPORATION BALTIMORE FEDERAL BUILDING 19 E. FAYETTE STREET, BALTIMORE, MARYLAND 21202
		PROJECT AREA GLENMONT SECTION I AREA 4
		PROJECT TITLE PLAN & PROFILE SUMMER HOLLOW LANE STA. 20+35 TO 25+52.00
		Scale: AS SHOWN DATE
		ENGINEER MCA ENGINEERING CORPORATION 1020 CROMWELL BRIDGE RD. TOWSON, MD. 21204

Paul Lee
 Paul Lee
 Registered Engineer
 No. 4047



PLATT 1, PLAN PROFILE
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'

F-78-6"

DEPARTMENT OF PUBLIC WORKS
W. F. Albert 3-21-78
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
[Signature] 3-17-78
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Rev. Date	Rev. No.	Revision Description
		6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER: COLONIAL CORNER SERVICE CORPORATION BALTIMORE FEDERAL BUILDING 19 E. PATRIE STREET, BALTIMORE, MARYLAND 21202
		PROJECT AREA GLENMONT SECTION 1 AREA 4
		PROJECT TITLE PLAN & PROFILE NIGHTSHADE COURT STA. 0+0 TO 5+32.40
		Scale: AS SHOWN DATE
		ENGINEER MCA ENGINEERING CORPORATION 1020 CROMWELL BRIDGE RD TOWSON, MD. 21204

Paul Lee
 Paul Lee
 Registered Engineer
 No. 4047

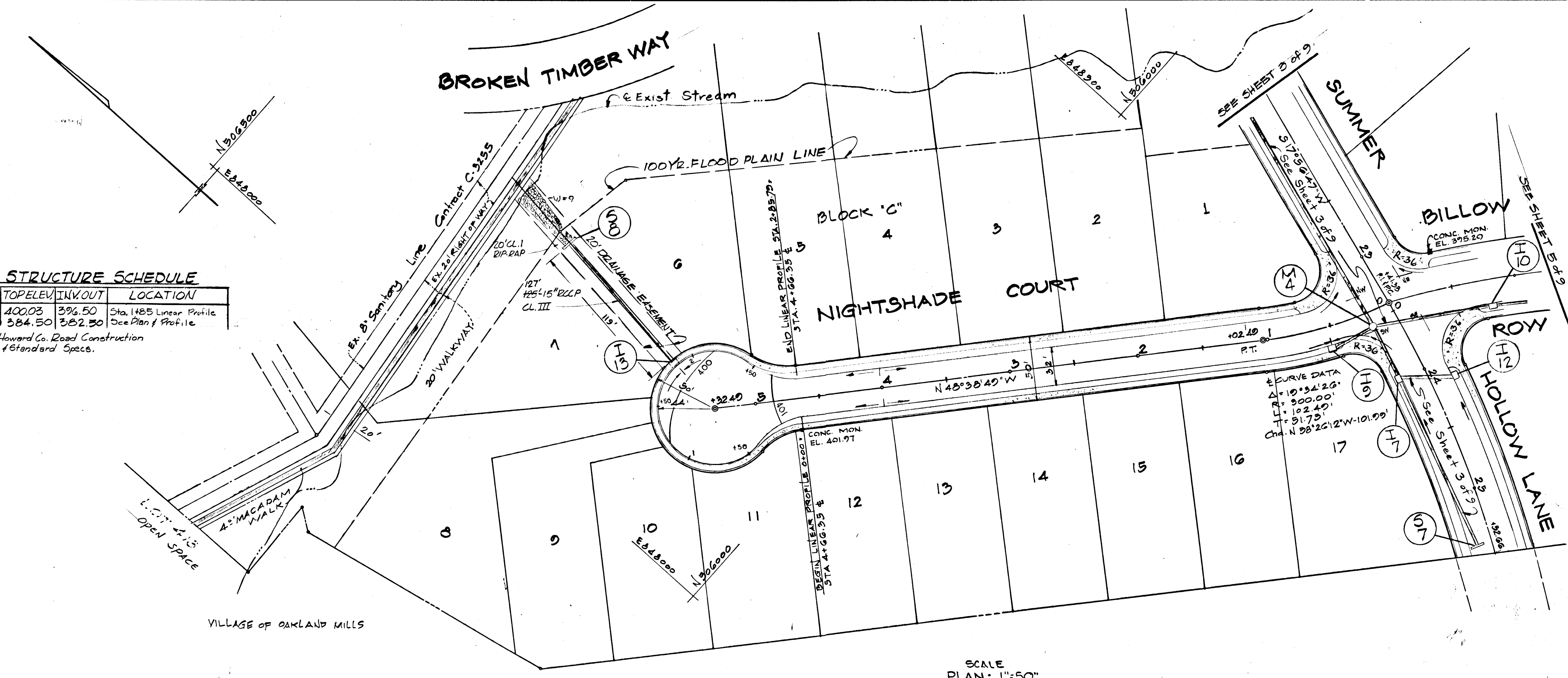
STORM DRAIN STRUCTURE SCHEDULE

No.	TYPE	* TOPELEV	INV. OUT	LOCATION
I-13	A-5' (2.5' Wide) D/GAN/R/W	400.03	396.50	Sta. 1+85 Linear Profile
S-B	TYPE C Endwell (252/110)	384.50	382.50	See Plan & Profile

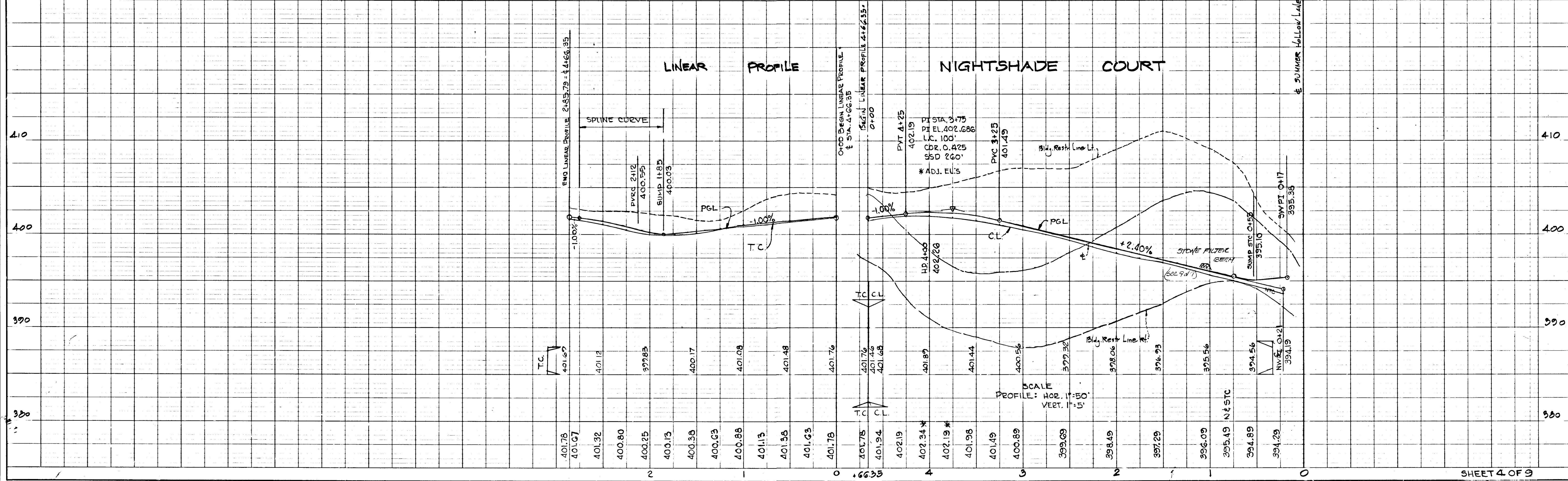
* See Howard Co. Road Construction Code & Standard Specs.

PLAN
 SURVEYED BY: _____
 NOTE BOOK NO. _____
 ALIGNMENT CHECKED BY: _____
 RE. OF WAY CHECKED BY: _____

PROFILE
 SURVEYED BY: _____
 NOTE BOOK NO. _____
 GRADES CHECKED BY: _____
 B. M.'S. NOTED BY: _____
 STRUCTURE NOTATIONS CHECKED BY: _____



SCALE
 PLAN: 1"=50'



SCALE
 PROFILE: HOR. 1"=50'
 VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS
W. O. Falout 3-21-78
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
William H. ... 3-17-78
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

NOTE: CONTRACTOR TO TIE INTO EXISTING PAVING FOR ALIGNMENT AND GRADE. FEATHER IN WITH RESURFACING IN HATCHED AREA IF AND AS REQUIRED. (STA. 11+36.1)

Rev. No.	Revision Description

6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

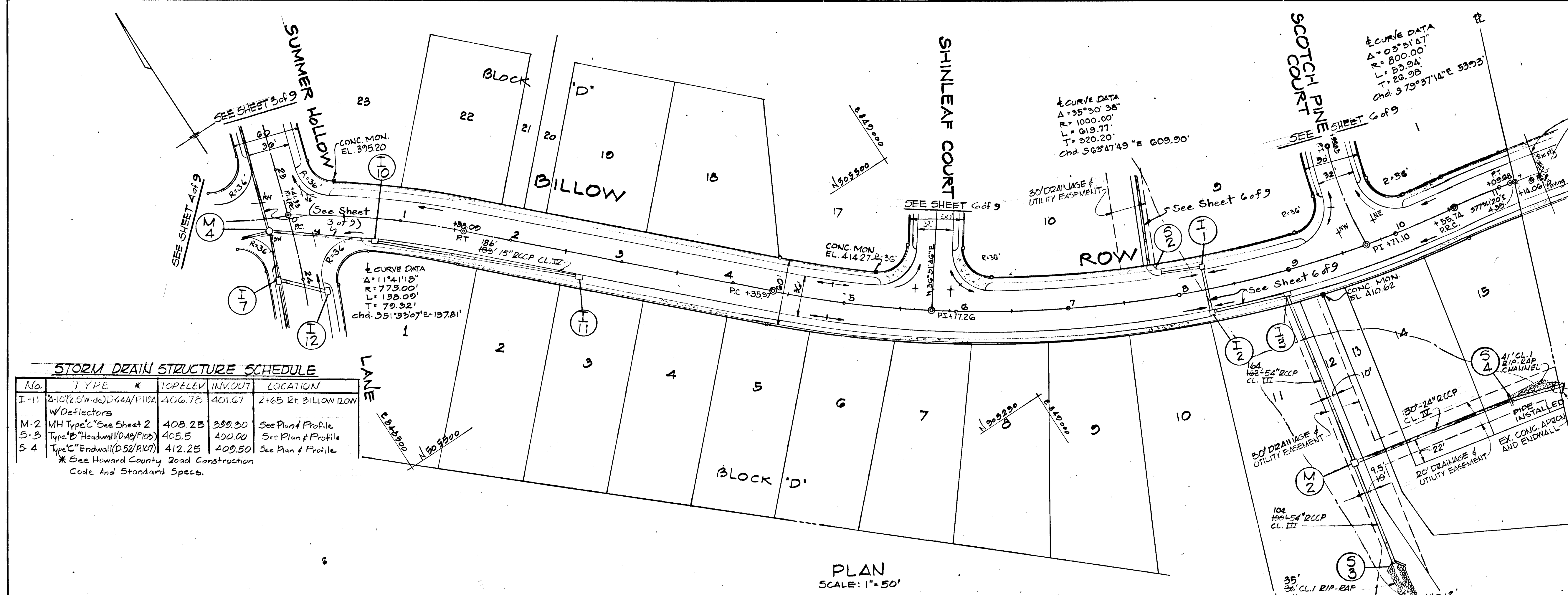
OWNER AND DEVELOPER:
 COLONIAL CORNER SERVICE CORPORATION
 BALTIMORE FEDERAL BUILDING
 19 E. PATYETTE STREET, BALTIMORE, MARYLAND 21202

PROJECT AREA
GLENMONT
 SECTION 1 AREA 4

PROJECT TITLE
PLAN & PROFILE
BILLOW ROW
 STA. 0+00 TO 11+36

Scale: As Shown DATE: _____
 ENGINEER
MCA ENGINEERING CORPORATION
 1020 CROMWELL BRIDGE RD.
 TOWSON, MD. 21204

Paul Lee
 Paul Lee
 Registered Engineer
 No. 4647

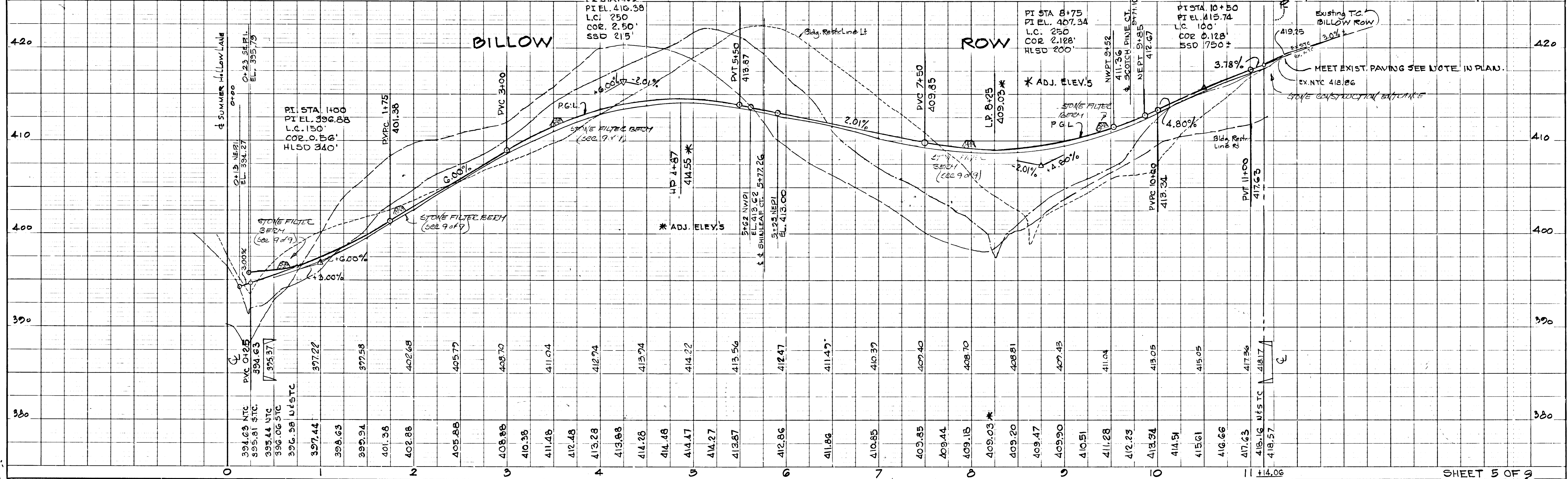


STORM DRAIN STRUCTURE SCHEDULE

No.	TYPE	TOP ELEV.	INV. OUT	LOCATION
I-11	4-10 (2.5' W. dia.) D64A/F115A W/Deflectors	406.75	401.67	2465 RT. BILLOW ROW
M-2	MH Type C See Sheet 2	408.25	399.30	See Plan & Profile
S-3	Type B Headwall (D48/P103)	405.5	400.00	See Plan & Profile
S-4	Type C Endwall (D52/P107)	412.25	409.50	See Plan & Profile

* See Howard County Road Construction Code And Standard Specs.

PLAN
 SCALE: 1" = 50'



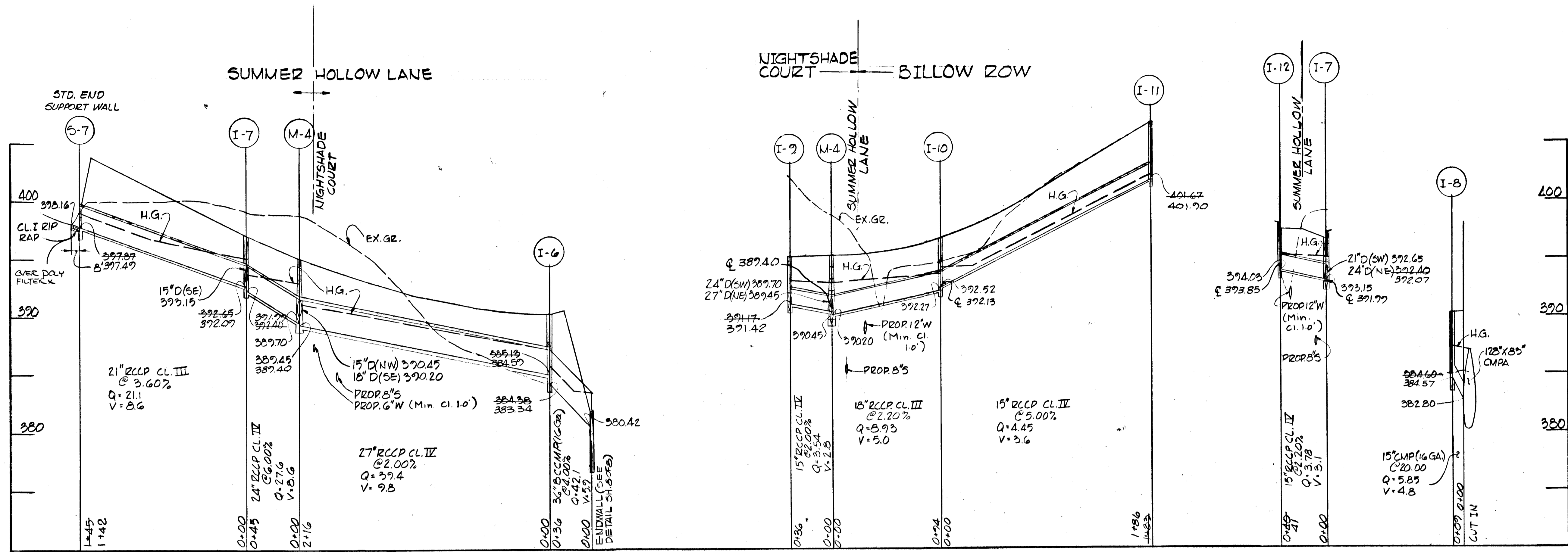
PROFILE
 SCALE: HORIZ. 1" = 50', VERT. 1" = 5'

F-78-61

DATE: _____
 BY: _____
 SURVEYED: _____
 NOTE BOOK: _____
 ALIGNMENT CHECKED: _____
 ELEV. MAX. CHECKED: _____

DATE: _____
 BY: _____
 SURVEYED: _____
 NOTE BOOK: _____
 PROFILE CHECKED: _____
 ELEV. MAX. CHECKED: _____

DEPARTMENT OF PUBLIC WORKS
W. L. Ebert 3-21-78
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
William W. Kuehman 3-17-78
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



Rev. Date	Rev. No.	Revision Description

6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER:
 COLONIAL CORNER SERVICE CORPORATION
 BALTIMORE FEDERAL BUILDING
 19 E FAYETTE STREET, BALTIMORE, MARYLAND 21202

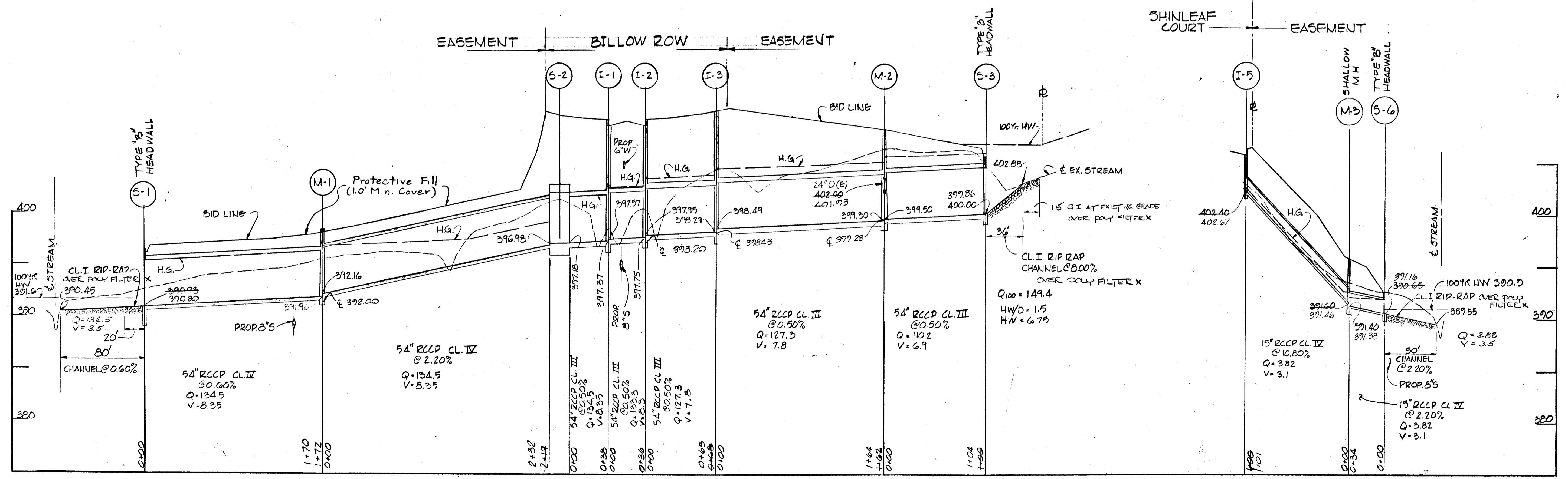
PROJECT AREA
GLENMONT
 SECTION 1 AREA 4

PROJECT TITLE
STORM DRAIN PROFILES

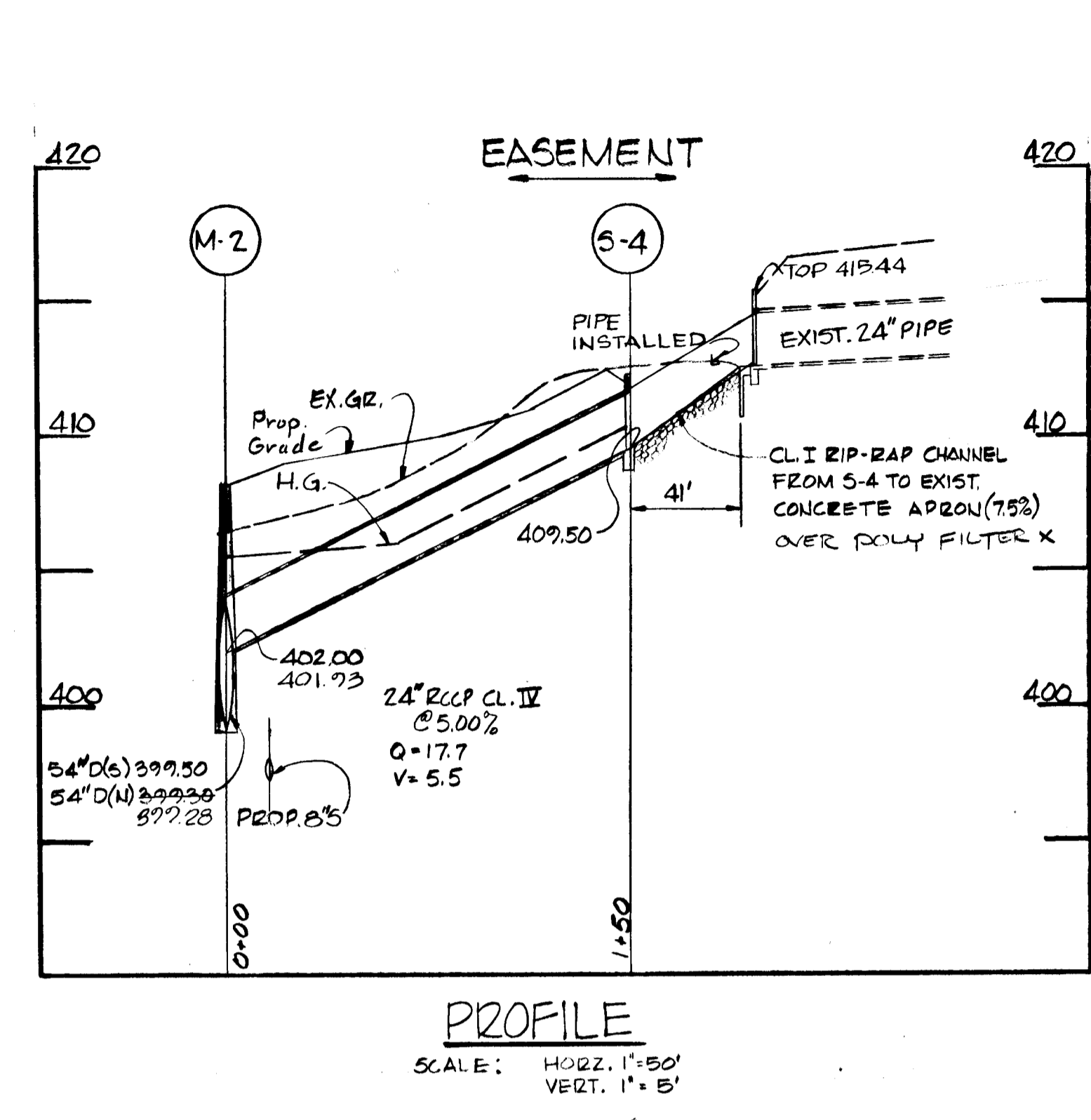
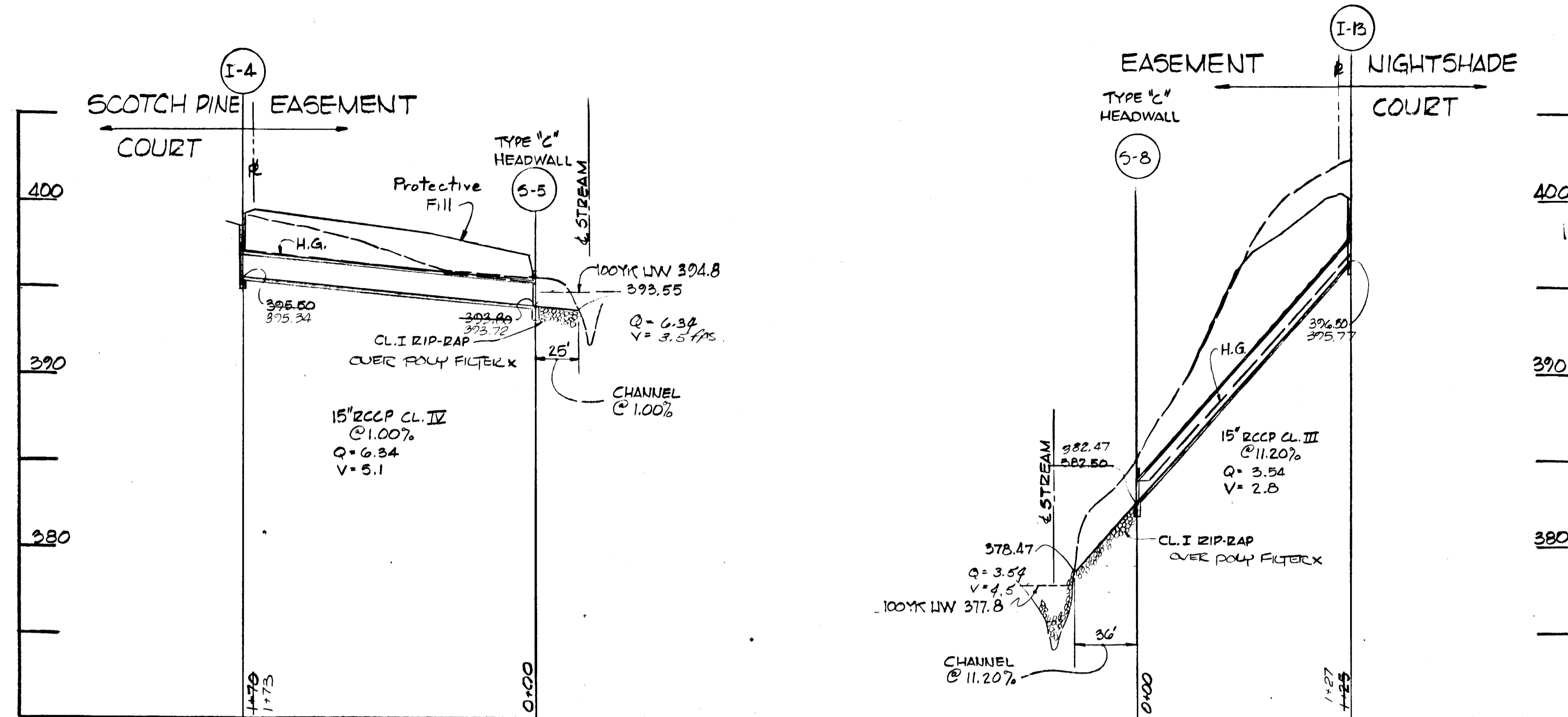
Scale: As Shown DATE:

ENGINEER
 MCA ENGINEERING CORPORATION
 1020 CROMWELL BRIDGE RD.
 Towson, MD 21204

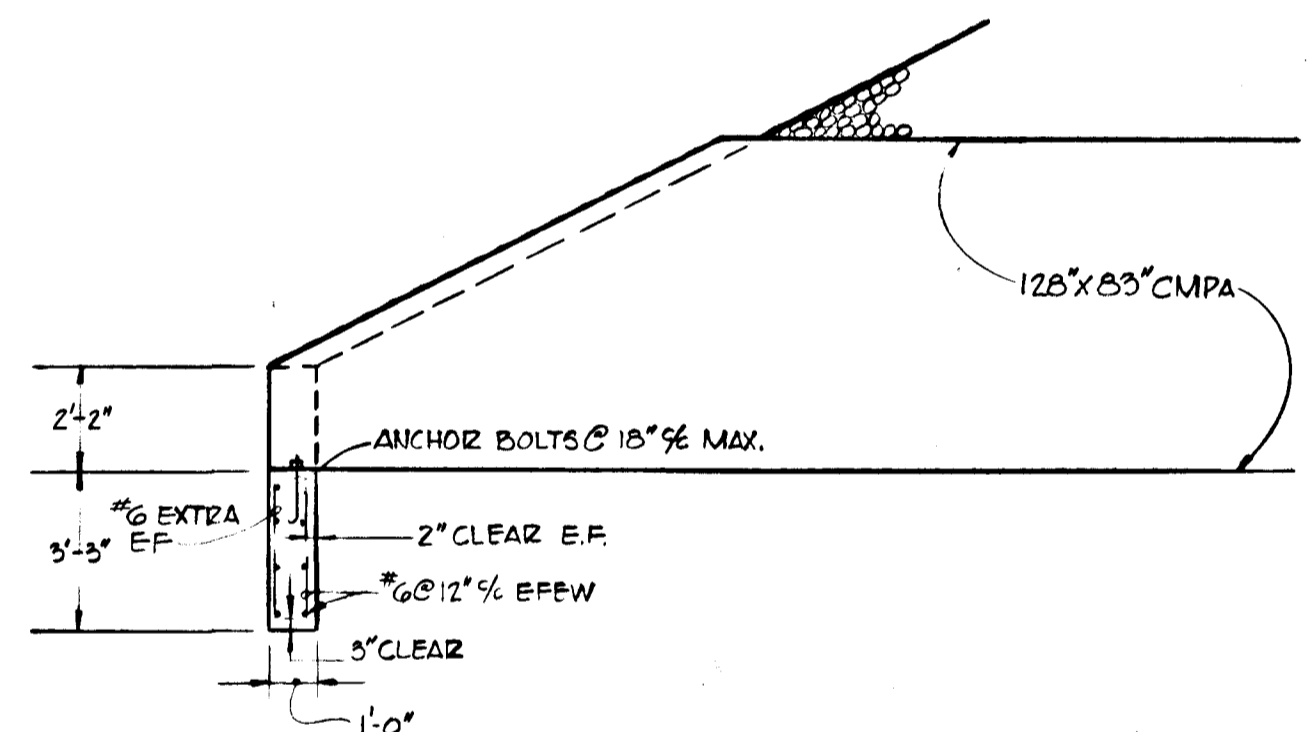
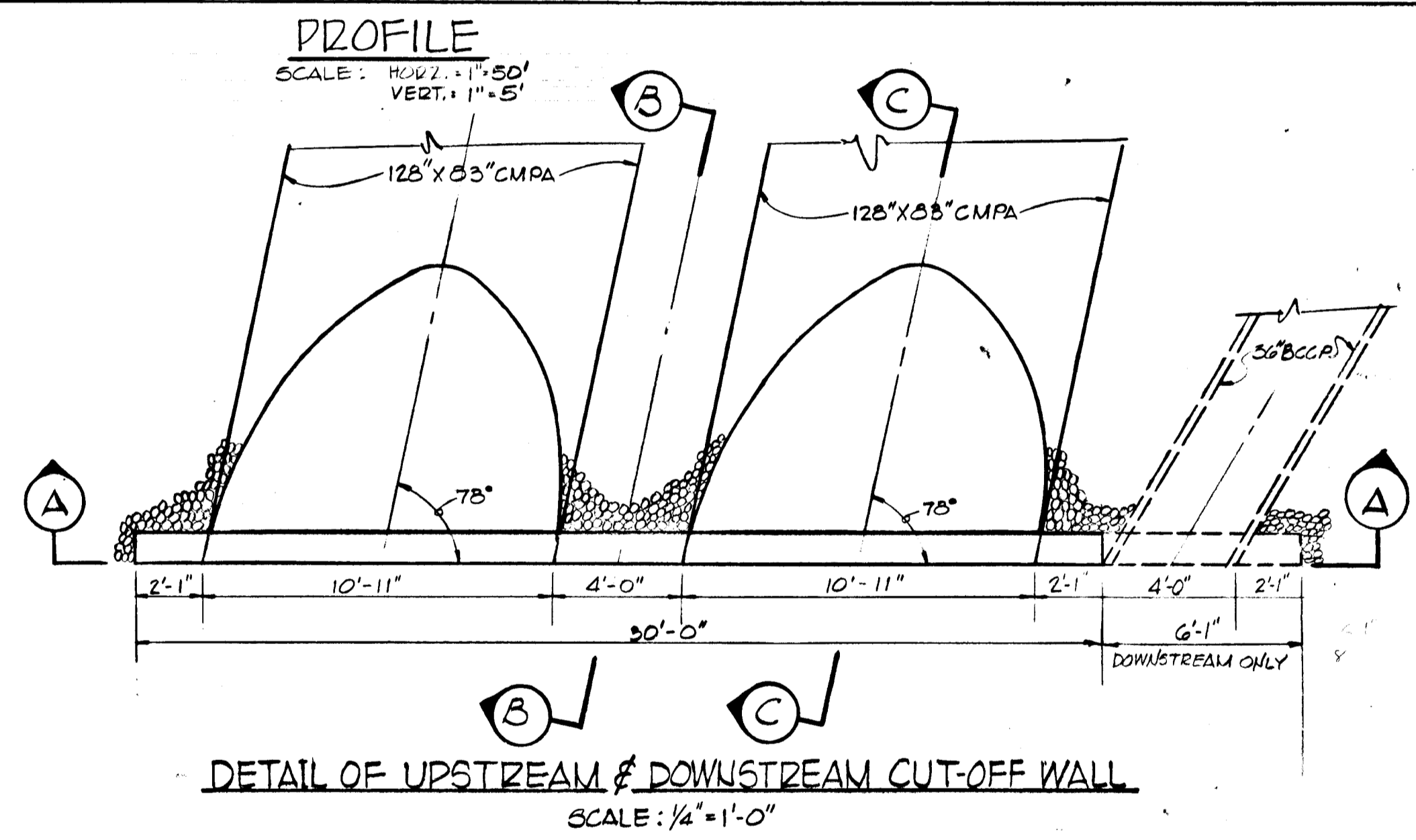
Paul Lee
 Paul Lee
 Registered Engineer
 No. 4047



Scale = HORIZ. 1" = 50'
 VERT. 1" = 5'



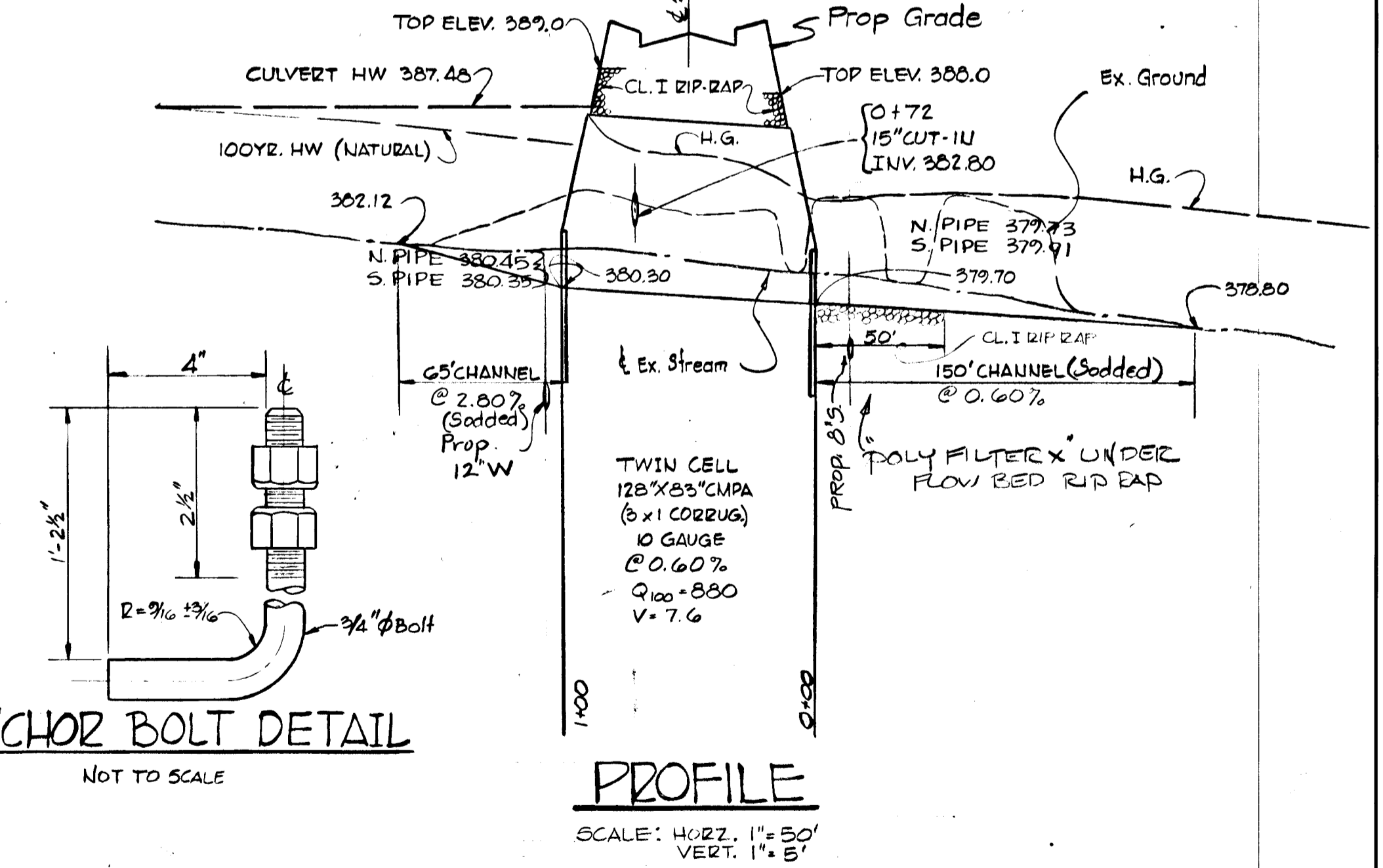
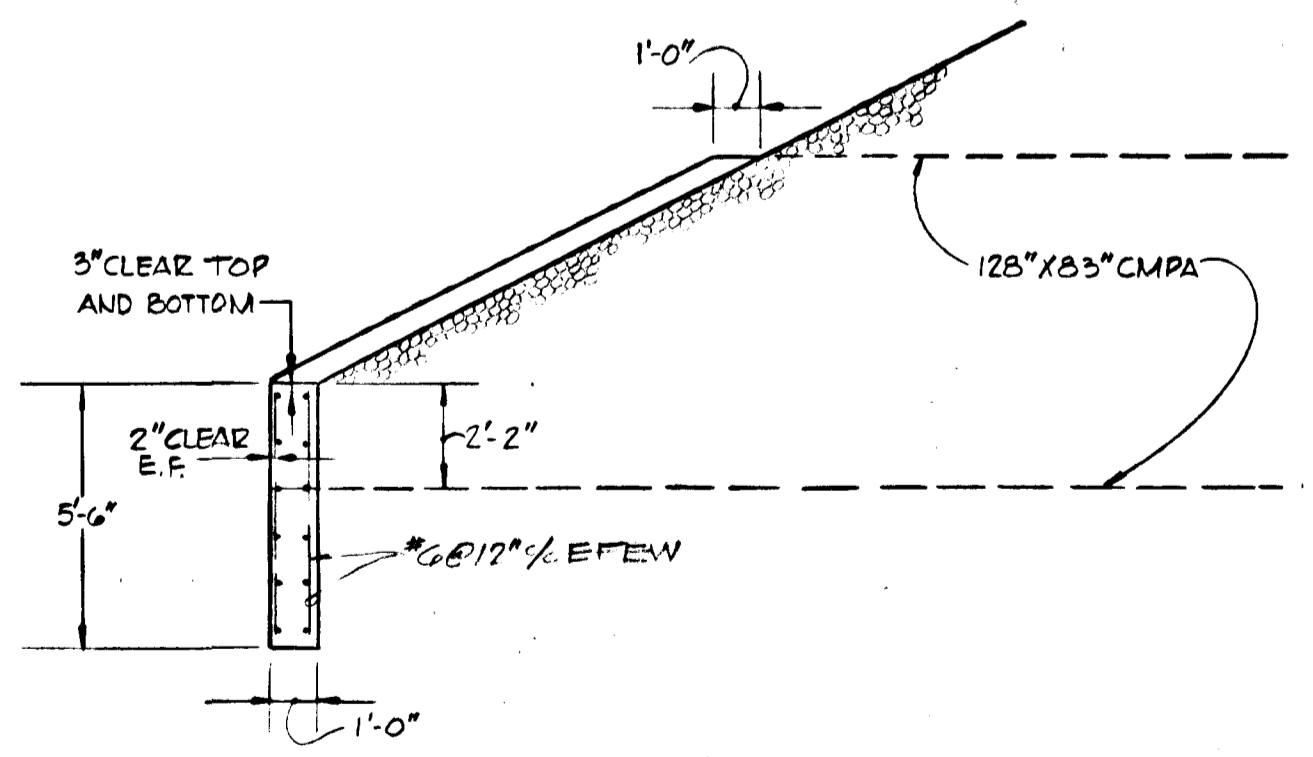
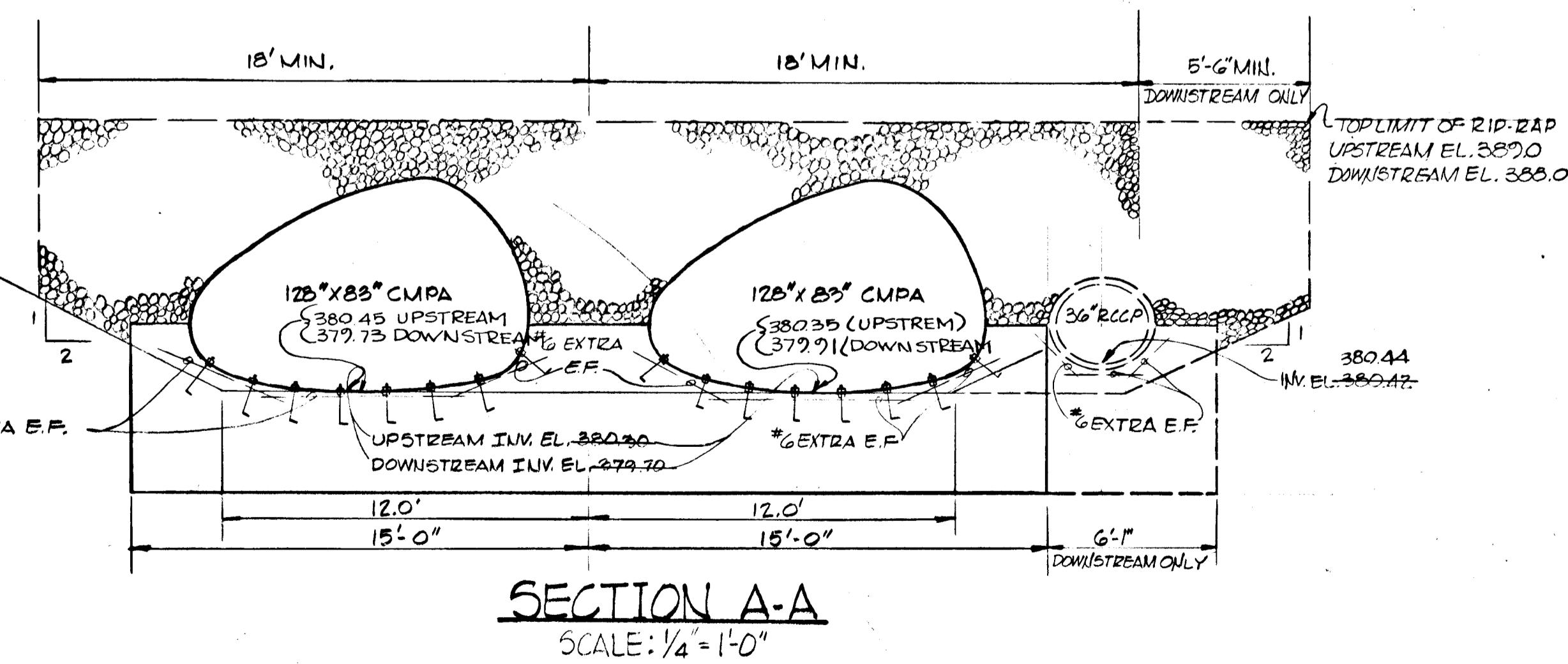
Ref. Date	Ref. No.	Revision Description
		6 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER: COLONIAL COASTER SERVICE CORPORATION BALTIMORE FEDERAL BUILDING 19 E. FAYETTE STREET, BALTIMORE, MARYLAND 21202
		PROJECT AREA GLENMONT SECTION 1 AREA 4
		PROJECT TITLE STORM DRAIN PROFILES & CULVERT DETAILS
		Scale: AS SHOWN DATE:
		ENGINEER MCA ENGINEERING CORPORATION 1020 CROMWELL BRIDGE RD. TOWSON, MD. 21204
		<i>Paul Lee</i> Paul Lee Registered Engineer No. 4047



HW COMPUTATION
 $q/2 = 440$

INLET CONTROL
 $HW/D = 0.97$
 $HW = 0.97 \times 6.92 = 6.71'$

OUTLET CONTROL
 $n = 0.027$
 $L = 100 \left[\frac{0.027}{0.014} \right]^2 = 73'$
 $K_e = 0.7$
 $H = 2.28$
 $dc = 4.10$
 $dc/D = \frac{4.10 \times 6.3}{5.5} = 5.5$
 $HW = 2.28 + 5.5 - 0.60 = 7.18'$
 Controls



Schedule of Construction:

1. Notify Howard County Bureau of Licenses, Inspections and Permits 48 hrs. in advance of any construction start. Sept 77
2. Install sediment control measures, clear & strip topsoil Oct 77
3. Construct storm drain system from S-3 & S-4 thru to S-1. Rough grade roadways North of Shinleaf Ct. & construction of stone roadway filters across roadways as they are brought to sub-grade. Oct-Nov '77
4. Stabilize disturbed areas (slopes, etc) as said areas are brought to grade, without planting season Oct 77-Apr 78
5. Construction of utilities with inlet silt traps as inlets are built, grade roadways South of Shinleaf Ct. Nov 77-Mar 78
6. Placement of sub-base stone on roadways as utilities are constructed. Apr '78

1. Stabilize all remaining areas.
2. Removal of temp. sediment control measures & stabilize these areas after obtaining permission from Howard City.
3. Maintenance: Immediately following stabilization until growth is firmly established.

Sediment Control Notes:

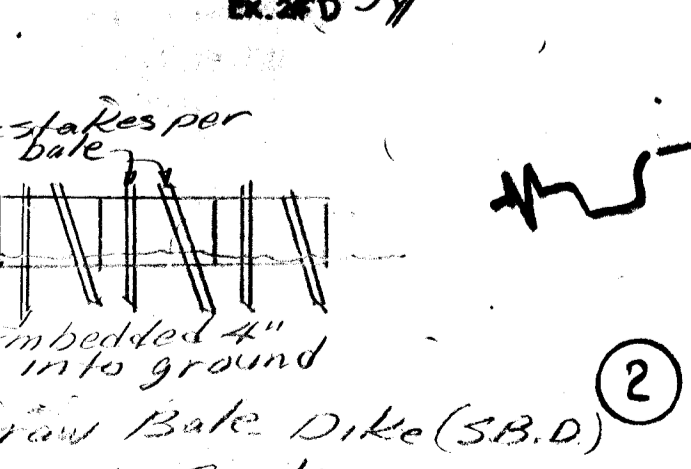
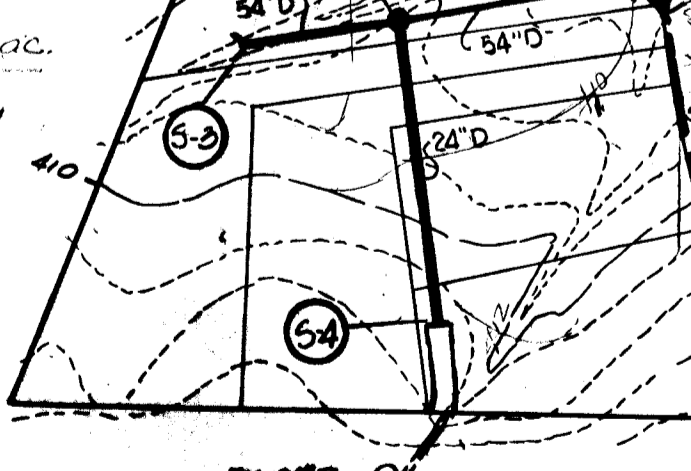
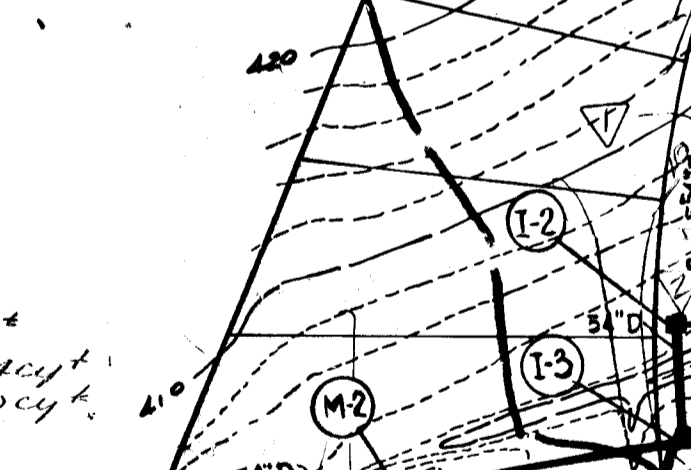
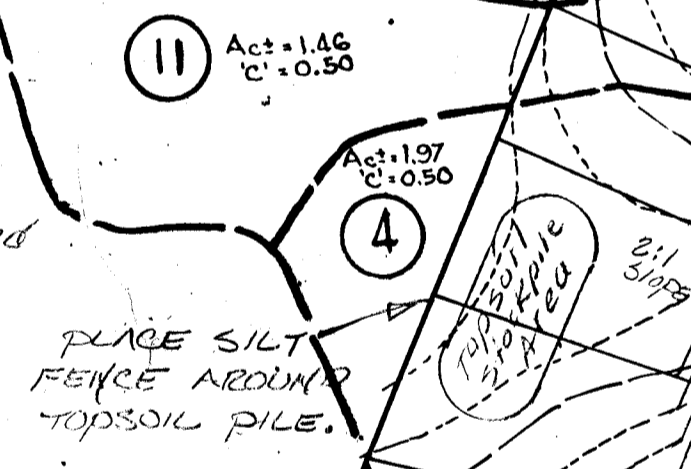
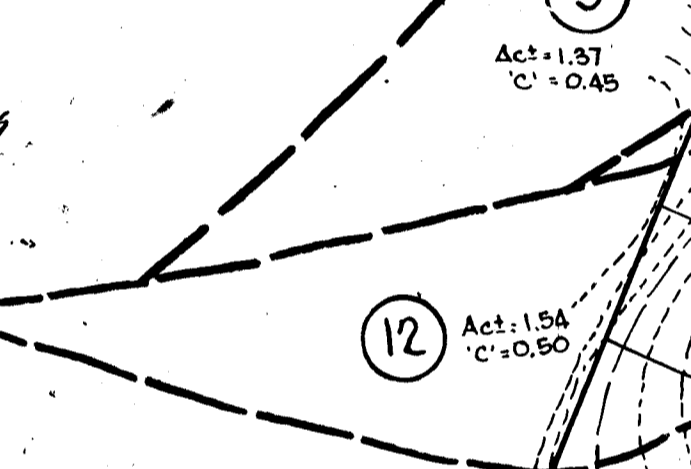
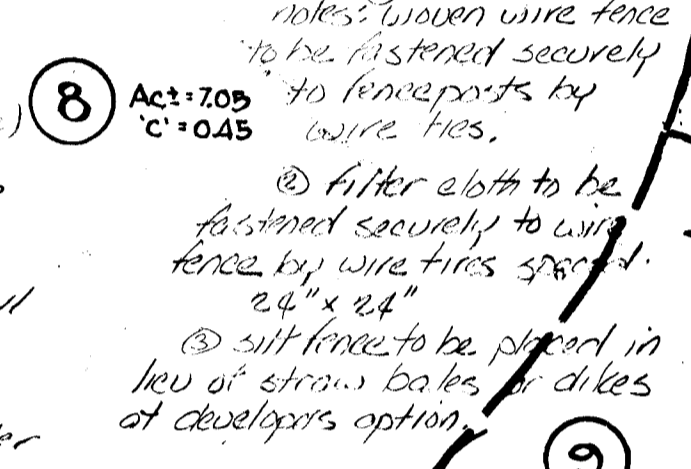
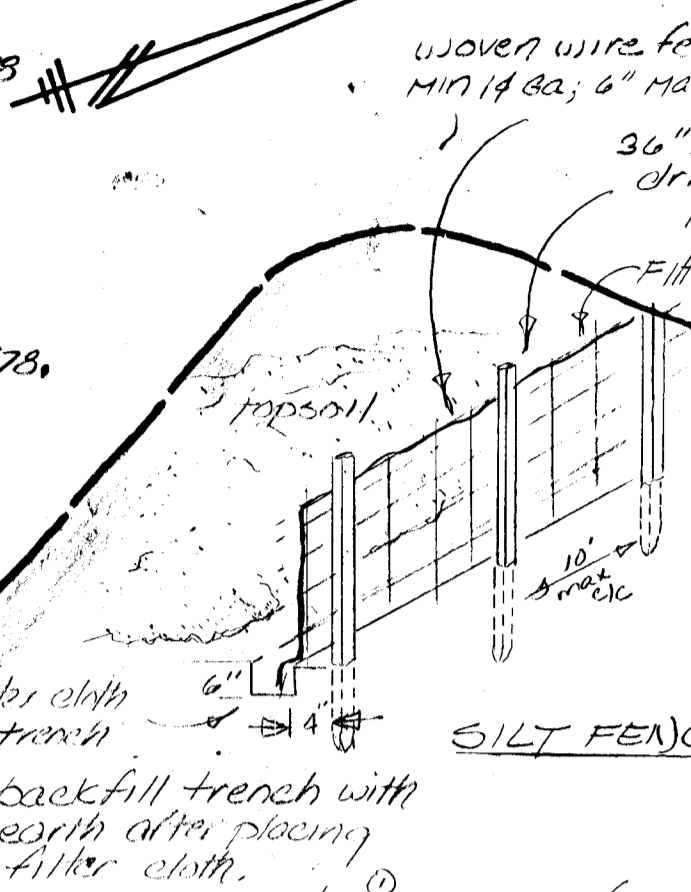
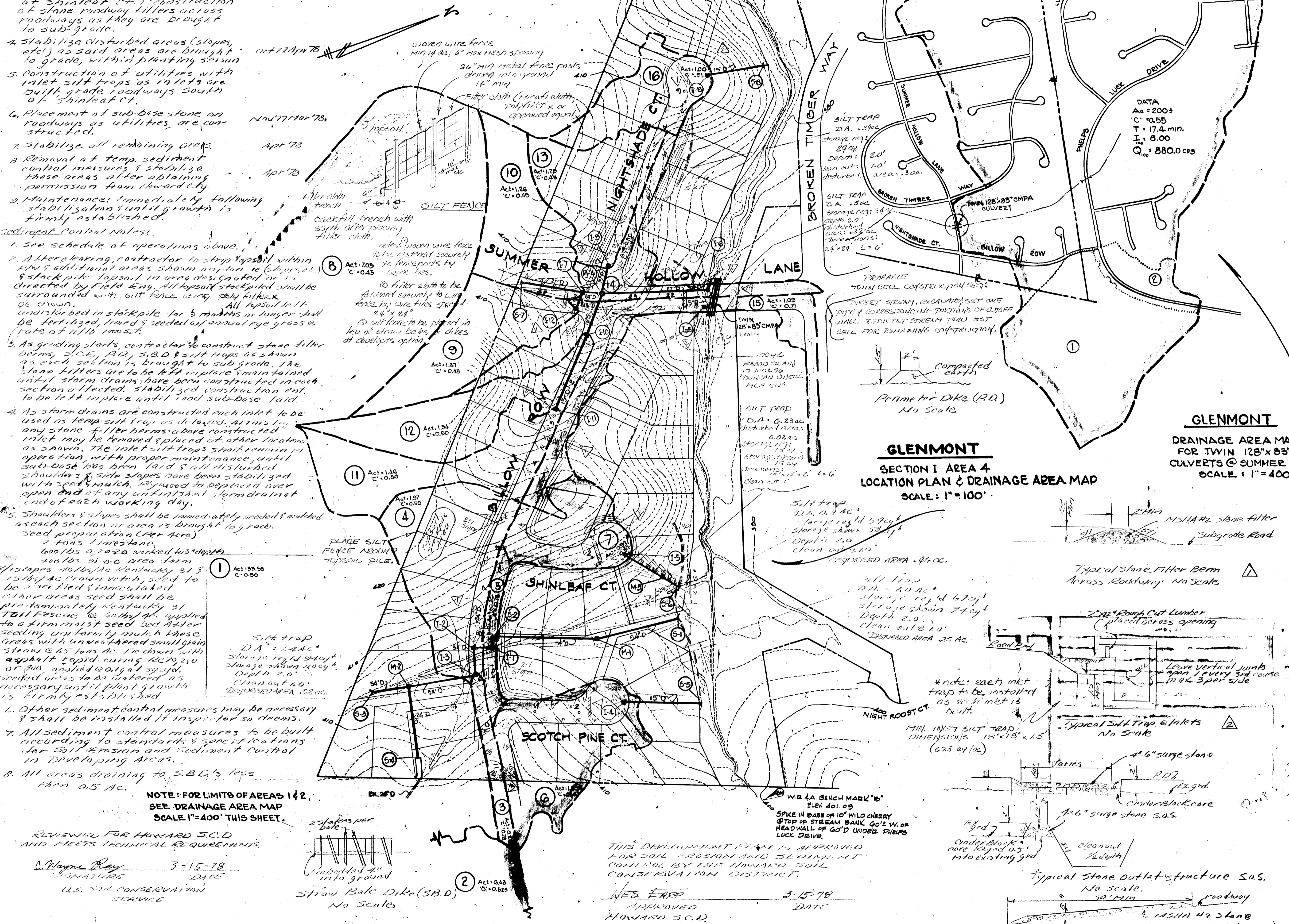
1. See schedule of operations above.
2. After clearing, contractor to strip topsoil within 10' of additional areas shown on plan (disposal) & stockpile topsoil in area designated or directed by Field Eng. All topsoil stockpiled shall be surrounded with silt fence using poly filter cloth as shown. All topsoil left undisturbed in stockpile for 3 months or longer shall be fertilized, limed & seeded w/ annual ryegrass @ rate of 1/10, 1000s.7.
3. As grading starts, contractor to construct stone filter berms, S.C.E., R.D., S.B.D. & silt traps as shown as each section is brought to sub-grade. The stone filter berms are to be left in place & maintained until storm drains have been constructed in each section & silt traps stabilized construction ent. to be left in place until road sub-base laid.
4. As storm drains are constructed each inlet to be used as temp. silt trap as detailed. Areas for any stone filter berms above constructed inlet may be removed & placed at other locations as shown. The inlet silt traps shall remain in operation with proper maintenance until sub-base has been laid & all disturbed shoulders & side slopes have been stabilized with seed & mulch. Plywood to be placed over open end of any unfinished storm drain at end of each working day.
5. Shoulders & slopes shall be immediately seeded & mulched as each section or area is brought to grade. Seed preparation (per acre):
 2 tons Limestone
 600 lbs 0-20-20 worked to 3" depth
 100 lbs 31-0-0 area form
 1/2 tons Kentucky 31
 15 lbs/cu crown vetch, seed to be sown & inoculated.
 Other areas seed shall be predominantly Kentucky 31 Tall Fescue @ 60 lbs/ac, applied to a firm moist seed bed after seeding, use form to mulch these areas with unweathered small grain straw @ 45 tons/ac. 1" down with asphalt rapid curing RT-2020 or 800, applied @ 0.75 gal sq. yd. seeded areas to be watered as necessary until plant growth is firmly established.
6. Other sediment control measures may be necessary & shall be installed if inspector so deems.
7. All sediment control measures to be built according to standards & specifications for Soil Erosion and Sediment Control in Developing Areas.
8. All areas draining to S.B.D.'s less than 0.5 Ac.

NOTE: FOR LIMITS OF AREAS 1 & 2, SEE DRAINAGE AREA MAP SCALE: 1"=400' THIS SHEET.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.
 Signature: *Wayne Ray* 3-15-78 DATE
 U.S. SOIL CONSERVATION SERVICE

SITE ANALYSIS:

TOTAL AREA SITE	23.4 AC±
TOTAL AREA DISTURBED	8.5 AC±
TOTAL AREA IMPERVIOUS	7.1 AC±
TOTAL AREA VEGETATED	6.3 AC±



THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *Wes Frepp* 3-15-78 DATE
 HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 Office of Planning and Zoning
 Chief, Division of Land Development

3-21-78 DATE
 3-17-79 DATE

Rev. Date	Rev. No.	Revision Description
		G th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER: COLONIAL CORNER SERVICE CORPORATION BALTIMORE FEDERAL BUILDING 19 E. FAYETTE STREET, BALTIMORE, MARYLAND 21202
		PROJECT AREA GLENMONT SECTION I AREA 4
		PROJECT TITLE SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP
		Scale: As Shown Plan 1"=100' Date 3-1-77
		ENGINEER MCA ENGINEERING CORPORATION 1020 CROMWELL BRIDGE RD. TOWSON, MD. 21204
		Signature: <i>George Lambros</i> Registered Engineer No. 6510

Legend & Site Data:

- Stone filter berm
- Inlet silt trap
- Stabilized construction ent.

Area: 23.4 Ac
 Soil type: Glenelg-Chester-Manor Assoc.
 Zoning: R-12
 Perimeter Dike (RD) Show base dike (S.B.D.)
 All drainage easements to be shown on Record Plans.
 Note: A grading plan must be developed before any building permits can be issued.

Engineer's Certification
 I certify that this plan for Erosion & sediment control represents a practical & workable plan based on my personal knowledge of the site conditions, and that it was prepared in accordance with the requirements of the Howard Co. Soil Conservation District.
 Signature: *Wes Frepp* Date: 3-15-78
 MCA Engineering Corp.
 1020 Cromwell Bridge Rd.
 Towson, Md.

Developer's Certification
 I certify that all development and/or construction will be done according to this plan of development & plan for Erosion & sediment control and I also authorize periodic on site inspection by Howard Co. Soil Conservation Dist. or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Co. Soil Conservation District.
 Signature: *Colonial Corner Service Corp.* Date: 3-9-77
 Colonial Corner Service Corp.
 Baltimore Federal Bldg.
 19 E. Fayette Street
 Baltimore, Md. 21202